Clinical Lectures ON DISEASES OF THE CHEST.

Delivered at Charing-cross Hospital,

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LECTURE VII.—PART I.

ON CASES OF COMBINED MITRAL AND AORTIC REGURGITATION.

GENTLEMEN,—There are three cases of heart disease in the Bow ward, to which I wish to-day to call your attention. They resemble one another in many points, and all of them offer many interesting physical phenomena for our observation, and illustrate numerous important points in relation to physical diagnosis. The first is that of

Joseph H——, aged twenty-seven, a porter at this hospital, who was admitted with the symptoms of heart disease about a fortnight ago. He was quite well up to the age of twenty, when he began to have occasional attacks of "rheumatics," some of which confined him to his bed. Two years ago he had an attack of unusual severity; and this fell heavily on his heart, the other attacks having affected it but slightly, or not at all. For this attack he was admitted into St. Bartholomew's Hospital, and his heart was declared by the physicians to be affected. Every joint was involved, and he could not move a limb, even in bed. He, however, completely recovered, and was able to resume hard labour, without any shortness of breath, for two years. His duties were particularly heavy, consisting of carrying coals and other ponderous things up and down the hospital stairs.

A month ago, when out on militia drill, he caught a chill, from the severe weather and the change of clothing, and the result was an attack of rheumatism, which the regimental surgeon said was a slight attack of rheumatic fever, and for which he sent him to bed. About ten days or a fortnight afterwards he came back to resume his duties at this hospital. He worked the first day and nearly all the second, and then, from the shortness of breath that he experienced in carrying the loads up and down the stairs, he applied to Dr. Pollock, who at once detected the mischief in the heart. I then saw him, forbad him to go on with his work, and admitted him under my care.

He is of dark complexion, black eyes and hair, and thin; single, and always temperate.

Condition on admission.—Complains of palpitation and breathlessness on exertion, the heart beating very violently. Even when at rest there is a sense of weight and fulness about the heart, and a feeling as if there was something there that would be relieved by taking a deep breath; but if he does take a long breath he experiences a sense of increase of pressure, amounting almost to pain, in his left breast; he is unable to lie down at night, and consequently has very disturbed night's rests. In all other respects he is perfectly well; appetite good, and strength unimpaired.

Physical examination.—On stripping the chest, the heart's pulsations are conspicuously seen over a large area, the whole chest being agitated by its concussions, and a tremulous and wavy fluctuation being visible in the intercostal spaces, as far down as the interval between the sixth and seventh ribs, and as far to the right as the scrobiculus. At the seat of apex-beat there is a conspicuous recession at each systole, the heart being evidently withdrawn from the surface; the movement under the fifth rib, that coincides with the pulse and with the first sound, is undoubtedly a movement of recession. When, however, the fingers are applied in this situation, the recess, as far as *touch* goes, is converted into an impulse; and, even as far as *movement* goes, the recession has become impulsion to a slight degree—the fingers are slightly pushed out; but the *movement* is much less considerable than the *sense* of impulse. This is easily explained: the relaxed ventricle is soft and yielding, and does not resist the pressure of the fingers, which are therefore allowed to press forward into it; but the moment it contracts it becomes hard and rigid, and refuses any longer to yield before the digital pressure. The moment the contraction is over the muscle again becomes flaccid, and the fingers again sink into it. Thus, under the pressure of the fingers, the tactile sense of impulse, and even the movement of the fingers themselves, may be (and undoubtedly are) due, not to a corresponding movement of the heart, but to an alternation of rigidity and relaxation, of hardness and softness. And there can be no doubt, both in health and disease, that the sense of systolic impulse on the application of the fingers is due to this hardening of the ventricular muscle, and the resistance thereby offered to the pressure of the fingers, previously unresisted. The sense of arterial pulsation, in the ordinary act of feeling the pulse, admits of the same explanation. The actual enlargement of the radial artery we know to be extremely small—not more, as shown by Poisseuille, than one-twentieth of the diameter. And yet the impression of the finger is that the artery has at least doubled its volume. The change is not one of volume, but of flaccidity to tension—of non-resistance to resistance. This is well shown by the sphygmograph, in which the range of movement depends entirely on the degree of pressure which this varying tension resists and yields to: mere contact will give you no result; you must have something that will measure, not the movement, but the tension.

Although to the finger-ends the systolic impulse is plainly perceptible, yet on applying the ear to the stethoscope the principal impulsion is found to be at the diastole, there being a very fairly developed diastolic impulse. (Bear in mind, in relation to this point, the conditions present—hypertrophy and aortic regurgitation.) How are we to explain the systolic impulse to the fingers coexisting with the diastolic impulsion of the stethoscope against the ear? The one is the resistance of the hardened muscle; the other the recoil against the thoracic parietes of the relaxed hypertrophous mass, released from the systole which had just before gathered it up.

On listening at the base I could hear at first no distinct murmur, but the first sound was muffled and dull, and the second sound indistinct at the pulmonary but well marked at the aortic cartilage. I felt sure, however, in spite of the absence of regurgitant murmur, that there must be aortic regurgitation, from the character of the pulse; I thought, therefore, that though I did not hear the murmur of aortic regurgitation in its authorised situation, convection might give it me lower down; I accordingly placed the stethoscope over the left fourth cartilage, and there I heard it plain enough. Afterwards, on listening over the situation of the aortic valves with great care and patience, I could at length clearly hear a diastolic murmur starting from a well-marked second sound. The second-sound element here could not have been afforded by the valves of the pulmonary artery, as it was at the right third cartilage, and not at the left, that I heard it best. We have here then an example of sharp and tolerably complete closure (as shown by the completeness of the second sound), followed by a squirting back into the ventricle, through what must be a mere chink, of a slender thread of blood. At the apex there is a well-marked systolic souffle: to the right of the apex, from the aortic regurgitant murmur being audible, the sound is double; but to the axillary side of it, and up towards the axilla, the aortic murmur being lost, the mitral alone survives.

We have, then, in this case mitral and aortic regurgitation, the two resulting murmurs having what I have shown to be their natural localisation.

Pulse 84, hard, strong, and full; its jerking, leaping character being moderately developed. The temporal artery is very tortuous, and its writhing, wriggling increase of tortuosity at each pulsation is very strongly marked. I infer from this strength and hardness of the pulse that the mitral regurgitation is not considerable; if it were, the amount of blood impelled forwards would be so reduced that it would not be sufficient to sustain the full, strong, hard stroke which we find. There is nothing that so reduces the importance of evidence of mitral regurgitation—that shows so

positively that the regurgitation cannot be considerable—as a strong, full pulse.

Let me now read you the notes of the second case.

Thomas J——, aged twenty-nine, a healthy-looking man, with sandy beard, by occupation a parchment squarer, temperate, single, and always having led a steady and regular life, was admitted into the hospital on June 29th, suffering from the symptoms of heart disease. Fifteen years ago he had an attack of rheumatic fever. It confined him to his bed about four days, and in eighteen or twenty days he was able to resume his work; so that the attack was a light one. He had shortness of breath immediately preceding and accompanying it; but does not remember that he had pain in the chest, or palpitation. He then for ten years went on perfectly well; and then, five years ago, suffered from an attack of tightness of the chest and shortness of breath. It was brought on, he thinks, by taking cold from getting wet and not changing his clothes. The shortness of breath was increased by walking fast, or going up-stairs, or any exertion. The tightness of the chest was increased, he thinks, by taking food, and was like the pain of indigestion. This, however, is rather inconsistent with its being brought on by cold. (Were these symptoms those of endo- or pericarditis?) He had no rheumatic symptoms at this time, and was not confined to the house, but walked down from Haverstock-hill to Salisbury-square, Fleet-street, every day, and back again in the evening. He was not, however, equal to his duties, and did little more than sit about, or walk slowly on errands. This state of things lasted from October to Christmas, when the shortness of breath left him; but the so-called indigestion and the tightness of the chest still remained. Two months afterwards he was attacked with palpitation and an increase of the tightness of the chest, and he was so bad as to be confined to his room, in and out of bed, for three weeks. This was the first time that he distinctly noticed palpitation. There was no rheumatism with this second attack. In three weeks more he was able to resume his work; and from that time he ceased to be troubled with shortness of breath, or palpitation, till six months ago, when they reappeared.

Six months ago, then, the palpitation returned, with shortness of breath on exertion; it gradually developed itself, without any fresh illness that laid him up. He found that if he walked sharp his heart seemed ready to jump out of him. This has continued off and on ever since, and has on the whole gradually increased. He sleeps well, and is never disturbed at night by the shortness of his breathing. When he wakes in the morning, however, he is often troubled with palpitation—indeed, wakes up with it, but he does not think it wakes him. He has no cough or expectoration. He thinks that anything that flutters his mind and disturbs him emotionally produces palpitation more than bodily exertion.

Physical examination.—The whole præcordial region the seat of strong systolic concussion, visibly shaking all the ribs on the left side from the fourth downwards. The impulse as plainly visible beneath the sixth rib as the fifth, and the apex-beat both plainly seen and felt beneath the sixth rib, two inches outside the nipple line. Vertical distance of lowest visible impulse below the nipple a good three inches; distance from extreme left impulse to right auricle a good seven inches and a half. *Impulse sharply systolic.* Systolic rise of ribs sustained; diastolic subsidence sudden and distinct. Palpable thrill at systole over apex. At aortic cartilage a distinct diastolic whiff, commenced by a sharp and strong second sound from which it runs. At the pulmonary cartilage this diastolic bellows-sound is still louder, and at the fourth left cartilage, and working down thence, louder still. As it becomes louder, too, it becomes more prolonged, and in the last-mentioned situation extends through the whole of the pause right up to the following systole. To the true apex, to the left of the nipple line, the diastolic murmur hardly reaches; but here is found a soft but distinct systolic whiff. On reaching the nipple line, in passing towards the middle line, the diastolic murmur again becomes audible, and, the systolic whiff being still heard, the murmur is here double, and reminds one strongly of a soft to-and-fro sound. In passing thence to the right and upwards, the systolic murmur is soon lost, and the diastolic becomes the single surviving murmur. I should mention that at the apex and towards the axilla the systolic murmur *replaces* the first sound—there is no first sound; while on passing across the nipple line to the right a loud and strong systolic sound comes into existence, from which the systolic murmur runs. All over the right ventricle this initial systolic stroke, starting the murmur, is very strong. The heart's action is catchy, unequal, and irritable; and now and then a short imperfect systole comes close on the back of another, succeeded by a pause of unusual length, so that the anticipation of its proper time by the misplaced stroke is made up, and the ultimate regularity of the beat not put out: if you go on counting regularly, the last regular stroke is at the right time, then the anticipating and imperfect stroke is too soon, and then the third stroke falls into its regular place again—the same place where it would have fallen if no previous irregularity had occurred. This falling out of place of a single abortive stroke is rather of the nature of an *intermission* than an *irregularity*, and indeed *becomes* an intermission, or almost an intermission, at the radial pulse, where each of these abortive strokes is only registered by the feeblest indication.

Pulse 76, when sitting at rest; regurgitant arterial jerk moderately marked. Respiration 17; pulse-respiration ratio, therefore, 1 : 4½.

The first observation I would make upon the physical signs of this case is that they seem to negative the idea that the diastolic recoil of the hypertrophous ventricles, aided by the reflux of blood down into the left ventricle, can explain and cause diastolic impulse. At any rate, we have here well-developed hypertrophy with aortic regurgitation, and an impulse sharply systolic, with an equally sharp and marked diastolic recession. The regurgitation, however, is very prolonged—in fact, is only momentarily interrupted by the systole, occupying the whole interval from systole to systole with an even, sustained back-stream; so that no doubt the stream is, as in Joseph H——'s case, slender, and therefore the filling of the ventricle not "floppy." Such a case is therefore not a typical case to disprove the power of aortic regurgitation, in combination with hypertrophy, to produce diastolic impulse, if a large volume of blood suddenly refluxed from a patulous aorta upon the ventricle.

I find the interval between the heart's impulse and the radial pulse greater than usual—very conspicuous, the pulse being strikingly postponed. Can this arise from the volume of blood sent by the ventricle into the aorta at each systole finding an arterial system laxly instead of tensely filled with blood? I suppose there can be no doubt that the instantaneous propagation of the heart's pulsations to the recesses of the arterial system depends upon the tension of the arterial column of blood, upon the unity and oneness of that column, upon the tension being such that the movement of one particle involves the contemporaneous and equal movement of contiguous particles. The laxer the contents of the arterial system, the freer the movement of the particles of the blood among one another, and the less tense and rigid the arterial walls, the less immediate and instantaneous will be the propagation of the stroke of the ventricle, the more fluctuous and wave-like will it be, and the more will it be spent in the dilatation of the arterial calibre. I think anyone will realise this for himself in contemplating the difference there would be in the transmission of an impulse through a long india-rubber tube tensely filled with fluid, and through one laxly filled. The one would be by an instantaneous "thrill," the other by a leisurely propagated wave. We see just the same difference in cases of ascites: if the abdominal distension is tight, a tap on one side gives a vibration on the other that seems to be absolutely synchronous with it; but if the distension is loose a sensible interval elapses between the tap on the one side and the impact of the little succeeding wave against the fingers applied to the other. If this is so, the postponement of the radial pulse in relation to the systole might be valuable corroborative evidence (and, in the absence of murmur, valuable substantive evidence) of the existence of aortic regurgitation. It would be interesting to see if, in cases where there has been a sudden and large loss of the circulating medium (blood, not money), as, for example, after hæmorrhages, and where, therefore, the arterial contents and walls must be in a lax and not a tense condition, this postponement of the pulse in the distal arteries occurs.

I would, in the third place, direct attention to the difference of the sounds at the aortic and pulmonary cartilages. At the aortic cartilage the regurgitant murmur is not nearly so loud as it is at the pulmonary, although the re-

gurgitation is undoubtedly aortic. How is this? Simply because the direction of the regurgitant blood-stream is to the left, and therefore carries the sound with it. It is simply a case of *convection*. I have over and over again heard aortic regurgitant murmur louder at the pulmonary than at the aortic cartilage; it is, I believe, the rule, and in this respect is the reverse of aortic obstructive murmur.

Then, again, I found this difference at the two cartilages—that while at the aortic the diastolic murmur started from a loud and strong second sound, at the pulmonary there was hardly a trace of any such initial second sound. From this we infer two things: first, that in this case the regurgitation is compatible with such a state of valves as permits sufficient sharp and energetic closure to develop the sound depending on such closure; and, secondly, that while *convection* transfers the sound of *regurgitation* at the aortic orifice more strongly to the pulmonary cartilage, *conduction* transfers the sound of *closure* at the aortic orifice more strongly to the aortic cartilage. Thus by the different direction in which sound is propagated by conduction and convection we get an analysis of the two elements of sound resulting from what is taking place at the aortic orifice. The presence of the strong initial diastolic stroke at the aortic and its absence at the pulmonary cartilage is, I think, the reverse of what we should antecedently have expected. If I had found it present at the pulmonary and absent at the aortic cartilage, I should have said—"This is perfectly intelligible and explicable; the healthy condition of the pulmonary valves permits their perfect and sharp closure, and therefore their production of a natural second sound audible at *their* cartilage, while the diseased condition of the aortic valves which permits regurgitation, by destroying their power of perfect and natural closure abolishes in them the second sound, which at the aortic cartilage is, therefore, not heard." This is what I should have said, and this is exactly what we find, as I shall point out to you in a minute or two, in regard to the sounds developed at the right and left auriculo-ventricular orifices in this very case.

But why should not the pulmonary second sound (that element of the second sound which is due to the closure of the pulmonary valves) assert itself *as much* as the aortic? There is one great reason why it should assert itself *much more*, and that is, the position of its generation being so much nearer the surface than that of the aortic element, the pulmonic valves lying almost directly in front of the aortic. And there is yet another reason, Skoda's well-known theory, adopted without question, as far as I can see, by all subsequent auscultators, that in all such disease of the left side of the heart as produces notable impediment to the pulmonary circulation, and consequent hypertension of the blood in the pulmonary artery, that portion of the second sound due to the closure of the pulmonic valves is, by virtue of that hypertension, intensified; in other words, that the second sound becomes louder at the left third cartilage than at the right. Now here we have just such a state of things as ought to produce such a condition; we have evidence of mitral regurgitation, of which, according to Skoda, this intensification of the second sound at the pulmonic cartilage is characteristic. And yet, in spite of the aortic valves being so diseased as to prevent their perfect closure, in spite of their greater remoteness from the sternum, and in spite of Skoda's dictum, we find the second sound unnaturally loud at the right third cartilage, and faint at the left. Now, how is this? Is it that the physical change in the diseased valves, while it involves incomplete closure, is such as to produce greater shock at that closure than is natural? Is it that the contents of the ventricle projected into an arterial system rendered lax by the regurgitation which has just taken place recoil with greater sway and less steadiness on the aortic valves? Is it that there is some anatomical peculiarity in the morbid change in the valves in this case that a post-mortem examination will bring to light? Is it that the blood, propelled into the aorta by the hypertrophied left ventricle with unwonted force recoils with unwonted force upon the aortic valves, and so exaggerates the aortic element of the second sound? I cannot tell which it is; probably the last. I merely ask the question, and, like Brutus in the Rostrum, "pause for a reply." At any rate, there is the fact; and, at any rate, it is a glaring violation of Skoda's theory, of which I have seen so many that I am perfectly sceptical as to its value—as to its deserving the name of a *law*. I have seen other examples of this great loudness of the second sound in cases of aortic regurgitation, and have called attention to them.

There is one more point on which I would remark—that while the mitral regurgitant murmur *supplants* the first sound at the apex, and to the left of it, no sooner do you get over the right ventricle than this same murmur is ushered in by a clear and strong first sound; over the left ventricle the first sound is lost, and you have nothing but murmur; over the right it is present, and you have sound *and* murmur. How is this? It cannot but be that the mitral element of the first sound is abolished by the disease of the valve, while the tricuspid element survives. Thus you see that in this case, while disease gives you at the mitral orifice murmur with *loss* of natural sound, it gives you at the aortic orifice, as we have just seen, murmur with *intensification* of natural sound.

WHAT WE OBSERVED DURING A RECENT VISIT TO THE SEAT OF WAR.

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TAKING Brussels for our starting-point, we proceeded, on Sept. 23rd, 1870, to Poix St. Hubert by rail; and thence by diligence, through a very interesting country, to Bouillon—a small town on the river Stenay, on the main road to Sedan. Here we began to notice some of the effects of war. The place was crowded; and there were about 100 wounded soldiers in the village, under the care of the Prussians, scattered in various buildings. Dysentery was rife. The patients were dying at the rate of about six a day; but we could not learn any particulars of the cases. We heard first of the magnitude and difficulties of the transport of stores and wounded at Bouillon, horses and carts being required for purely military service; so that some of the officers connected with the ambulances were often under the necessity of walking to and from Sedan to Bouillon and the nearest railway town, a distance of twenty-six miles. Food was scarce, owing to the immense number of soldiers and wounded who had passed through the place during the previous three weeks, the latter alone having averaged over 700 a day.

A ride of eight miles next morning, through a very beautiful country in the heart of the forest of Ardennes, brought us to the descent towards Sedan; and in the villages for the last two miles we noticed numerous red-cross flags flying from the churches and most of the large buildings—sure evidence of suffering within. The marks of fighting along this part of the road were painfully evident; and the numerous graves on each side told their own sad tale. On one field the surface was literally covered with loose papers—the contents of the soldiers' pockets; and this we found always the case where the engagement had been severe. It is said that the men, in anticipating a desperate struggle, invariably empty out all their papers, so that they may have a chance of being picked up. Knapsacks, helmets, straps, and broken weapons of all kinds were almost as numerous as the pieces of paper, and in some places literally covered the ground in heaps.

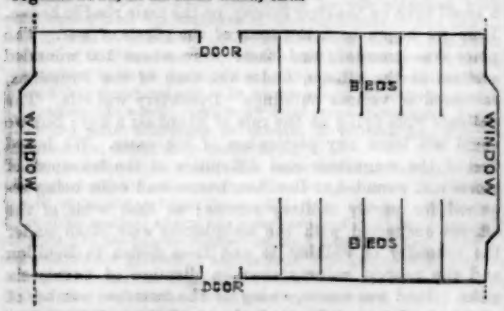
After the battle of Sedan no less than 14,000 French wounded were brought into the town; and although many of these had, at the time of our visit been sent away into Germany, the numerous cross flags flying throughout the town told of many still there.

We may remark here that the plan of the Prussians has been, throughout this war, to send away as many of the wounded as possible at once, and to keep none near the battle-fields who are at all able to be moved. The horrible stench we encountered in some parts of the town was sufficient to suggest the necessity of removal at the earliest possible period. We ventured to throw out a hint to some of the authorities that one very efficient means of lessening

this smell would be to have numerous peat fires burning over the district—a very simple plan, which might easily be adopted.

The Anglo-American Ambulance, by far the largest in Sedan, is situated at the Caserne d'Asfeld, now converted from barracks into a hospital. It is situated on high ground at the west extremity of the town, and facing some slopes upon which the Prussian batteries had been placed. On each side is the citadel, and the ramparts rise up behind the barrack square. The building was appropriated on the 31st of August, while the fighting was going on, and wounded began to arrive at once. The next day the building was full to overflowing, not less than 600 being sent in, so that many had to be placed in tents arranged round the building. We were told that many of the wounded brought in had been lying on the field for four or five days, and in many instances had to remain untended for two days in the tents. There were sixteen surgeons, Dr. Mac Cormac and Dr. Marion Sims being at the head. Dr. Mac Cormac here, and Dr. Frank at Balan, are said to have performed all the operations; and if this was the case, it is easy to understand how some of the poor fellows may have lain two days or more before being operated upon. A striking commentary on this circumstance is afforded by the fact, that in proportion to the length of time which elapsed from the receipt of injury to the time of operation were the chances of the patient's recovery. Of those whose injuries dated back a week scarcely one recovered.

The hospital contained 384 beds, arranged in a series of long rooms, one leading into the other, about 30 feet by 50, and having a window at each end; the iron beds being in regular rows, 20 in each ward, thus—



The only furniture consisted of the beds, chairs, and a table in each room, with a screen near some of the doors. The operating room was the second from the entrance. The windows, which were of large size, had been kept open night and day, during all kinds of weather, from the first—the wind blowing through the ward. To this circumstance, along with the free use of carbolic acid, Drs. Sims and Mac Cormac attribute their success. There had been in this hospital no epidemic, no erysipelas, no hospital gangrene, no typhus. We noticed, however, more than one case of clear pyæmia at our visit. There were about 100 cases in the building, all the others having been removed. Of the latter, Dr. Woodham Webb took charge of 40, who were placed in a handsome, well-furnished chateau near Balan; and during the first week after removal 11 cases of fever broke out. The rooms are said to have been close, owing in some measure to their being fully furnished; but so far the rate of mortality was unknown. Meanwhile no case had occurred among the number of those left in the caserne.

There is no doubt that the plan of free ventilation, admirably as it answers in warding off so-called hospital diseases, has this drawback: it has to answer for many cases of pneumonia and other chest mischief which would not otherwise have occurred. It is possible that deaths from this cause might have been prevented if there had been surgeons in sufficient numbers and of sufficient experience to watch these cases, to detect any premonitory signs of chest affection, and then in such a case to have the patient at once removed to a somewhat less airy ward set apart for the purpose.

Conservative surgery had been attempted to a large extent, but the results were not so satisfactory as might have been anticipated in the opinion of Dr. Mac Cormac. Most of the wounds we saw were those produced by shell or the mitrailleuse bullet—the former causing extensive flesh wounds, the latter smashing the bone very much. The needle-gun and the chassepôt bullets were both said to cause much crushing of bone—necessitating, as a rule, primary amputation. In every case in which a bullet was found to have entered the bone amputation was resorted to. Resection cases were plentiful, and had in many instances turned out well. It must be remembered that we saw what may be termed the intermediate cases only: those in which the injury had been unusually severe or slight had gone—too many, alas! not far, but beyond human observation, as a small well-filled burial-ground hard by testified. All the slighter cases, including most of the injuries about the head and upper extremities, had been removed to healthier spots; and this may explain some statements which have appeared in the papers to the effect that a large proportion of soldiers were wounded in the lower extremities. Probably these alone came under the notice of the writer, as they were naturally enough kept longest in hospital.

Among many cases of interest, we saw one in which excision of both elbow and shoulder joint had been performed on the same arm; and the patient (a Frenchman) had also a very extensive lacerated face-wound. He was doing well twenty-three days after receipt of injuries.

Another man had a large lacerated wound of the thigh caused by shell, with a bullet-wound through both legs just above the ankle. This patient had tetanus early, which was readily and completely controlled by repeated doses of hydrate of chloral. He was suffering when we saw him from undoubted pyæmia, so that the case looked very unpromising.

We were told of one case in which a ball had struck a man on the front of the thigh, driving a piece of his trowsers with his watch deep into the muscles.* This was with some difficulty extracted, and the watch, though completely smashed, was found entire. The man did not long survive.

In every instance where it was at all practicable the bullets were extracted at once; and we were assured that in only three or four cases had it proved impossible to succeed in doing it. This forms a contrast to the plan pursued in the Dutch ambulances, of which we shall have something to say presently. The Dutch surgeons only extract when the operation can be readily performed.

Chloroform was given in all the operations of importance at the Anglo-American hospital. This was also the case at the French ambulance at Sedan.

The mode of dressing wounds and stumps was to use at first Lister's plaster, or simple wet lint; then as a subsequent dressing, after washing out the wound with lotion of carbolic acid of variable strength, according to the nature of the case, to place over it a piece of wetted lint, and on that some oakum. At first ordinary water-dressing, with lint and oil-silk or gutta-percha, or a simple poultice, was used; but the stench became intolerable. Under the use of oakum the wounds progressed more favourably, and the atmosphere of the ward was greatly improved. In a case of compound fracture of the thigh, two long side splints were employed with good effect, enabling the limb to be more readily moved without pain.

The diet was liberal in the extreme, meat being given twice a day in good quantity, soup also twice, and coffee and stimulants freely. Smoking was in this, as in all the other ambulances we saw, not only permitted, but encouraged. From the eager desire the poor fellows so uniformly manifested for tobacco, we could come to no other conclusion than this: that it has an undoubted power in soothing the nervous system, and in this way is of invaluable service after the excitement of a battle, and perhaps even more so in those cases where defeat has rendered the reaction more intense—as in the case of the French in this particular instance.

During the first three days after the battle of the 31st of August food was very scarce; and the medical men, like the patients, had to be content with bread and water, with some little wine. This, in the face of the work to be done, must have been trying enough. But now there is abundance, we may indeed say a redundance, of everything, medical help included.

* A part of this watch was exhibited at the last meeting of the Pathological Society.

At the Sedan French Ambulance, situated in what had been a large cloth warehouse, there had been three cases of primary amputation at the hip-joint; one of which was doing well twenty-four days after injury. One officer, who had both legs and both arms amputated at this hospital, was making a good recovery. A cavalry officer, he was riding when a ball struck both his legs, passing through and killing his horse; and a second bullet went through both his arms. The amputations were said to have been performed in spite of the patient's earnest entreaties to be left to die.

The Swiss Ambulance in Sedan had been a cotton mill, of which the three upper stories were occupied, the ground-floor being used for stores, &c. The windows were so numerous that there was almost one to each bed. The rooms were low, but very freely ventilated by means of the windows and the cracks in the floors. Free living, rest, and carbolic acid were the principal means employed, and with great success. Of thirty-five to forty cases of amputation, only one died. Of the cases of resection and compound fracture, none succumbed who outlived the first few days. Many were brought in dying, some even dead.

We must not quit the subject of Sedan without noticing the very unsavoury state of the river Meuse, in which large numbers of horses and men were drowned, and which must surely ere long, as it has, indeed, to some extent already, give rise to grave results among the population.

One word as to Bazeilles—that village of the dead, as it might well be called. Once a flourishing suburb of Sedan, with a population of about 3000, it is now as complete a ruin as the mind can possibly conceive; and the wreck of once charming villas and lively streets has become, it is to be feared, a vast mausoleum. The ambulances under the care of Dr. Frank and Dr. Woodham Webb are situated near to this place, but we had not an opportunity of seeing them. The latter is at Balan, and we have already alluded to the unfavourable condition of its inmates in speaking of the patients removed from Sedan. The history of Bazeilles and Balan alone would fill a volume; but we must pass on to our next hospital visitation.

(To be continued.)

ON THE FORCE OF THE HUMAN HEART.

By ANDREW BUCHANAN, M.D.,
PROFESSOR OF PHYSIOLOGY IN THE UNIVERSITY OF GLASGOW.

As the force of the human heart is a subject that can never lose its interest to physiologists, I desire to submit the following observations upon it, suggested by an estimate of it recently made by the Rev. Dr. Haughton, of which an account is contained in the *Dublin Quarterly Journal of Medical Science*, vol. xlix., p. 47, under the title "On the Mechanical Work done by the Human Heart." I merely premise that I wish to speak of the reverend gentleman with the most perfect respect, and that I am not the less indebted to him for his testimony on behalf of my opinions that it has been unintentionally and, indeed, unconsciously given.

I shall first endeavour to show that the solution of the problem of the heart's action proposed by Dr. Haughton is, so far as it goes, essentially the same as that which I laid before the profession nearly two years ago. I shall next endeavour to show that Dr. Haughton's solution, although capable of determining the mechanical equivalent of the work done by the heart, cannot be employed to determine more minutely the work which the heart actually performs, and gives us erroneous ideas when we attempt so to employ it.

Let it, in the first instance, be taken for granted that there is no error in the data on which our respective computations are based, so that we may have nothing to consider but the use which is made of them.

The three elements which Dr. Haughton assumes as the groundwork of his computation are, that the heart contracts 75 times in a minute; that at each contraction the left ventricle of the heart discharges three ounces of blood; and that the hæmastatic column in man stands at a height of 9·923 feet. He now multiplies the quantity of blood discharged at each contraction by the height of the hæmastatic column ($3 \times 9{\cdot}923 = 29{\cdot}769$), and regards the product as indicating the number of ounces that are raised one foot by each contraction of the heart. He again multiplies the product by the number of contractions of the heart in 24 hours, and so he obtains 89·706 foot tons as the measure of the daily work done by the left ventricle of the heart.

In addition to Dr. Haughton's three elements, I avail myself of a fourth—viz., the area of the ventricular orifice of the aorta, which I estimate with Kiel as equal to ·4187 of a square inch, and which I regard as an element of the very highest importance in the solution of the problem of the heart's action, and the more so that it can be determined with ease, and is therefore more worthy of reliance than are some of the other elements.

Supposing, then, that we add the element just mentioned to Dr. Haughton's other three, the following is the mode in which I employ these elements to determine the force of the heart. The weight of a cylinder of blood 9·923 feet in height, and having a base of ·4187 of an inch, is 30·20838 ounces. Three ounces of blood, which the heart discharges at each contraction, fill of such a cylinder 11·8245 inches, or ·985375 of a foot. Now, multiplying together the two numbers thus found, I obtain a product of 29·769, the identical result obtained by Dr. Haughton—

$$30{\cdot}208 \times {\cdot}985375 = 3 \times 9{\cdot}923 = 29{\cdot}769.$$

I had therefore reason in saying that Dr. Haughton's computation is essentially the same as mine, seeing that their results are identical.

The same coincidence holds with respect to my own computation, and comes out still more strikingly owing to the greater simplicity of the numbers. I assume that the heart beats 72 times in a minute, that it discharges two ounces of blood at each contraction, and that the height of the hæmastatic column in man is 88 inches. Now the weight of a cylinder of blood 88 inches in height, and having a basis of ·4187 of a square inch, is 22 ounces. Further, two ounces of blood, the quantity discharged at each contraction, fill exactly, of such a cylinder, 8 inches. Dr. Haughton's computation is 2×88, and that is exactly equivalent to my computation, 22×8; the common product being 176, which denotes the number of ounces which are lifted one inch at each contraction, and by dividing 176 by 12 we obtain the number of ounces that are lifted one foot—viz., 14·66. Dr. Haughton's number for each contraction is more than double, 29·769; but, in addition, he makes the heart beat 75 times in a minute, instead of 72 times, so that his total estimate of the day's work is to mine in the proportion of 30·774 to 14·66. But this difference does not depend on any difference in our modes of computation, which lead exactly to the same result, but merely on the different magnitudes assumed of the elements which form the base of the computations.

Neither are these accidental coincidences; for it is easy to show that the numbers obtained by Dr. Haughton's method are necessarily the same as those obtained by mine. For let W denote the weight of a cylinder of blood having a base of ·4187 of an inch, and a height (H) equal to that of the hæmastatic column, and let h be the portion of that cylinder equal in volume to the blood emitted from the heart at each contraction, while w denotes the weight of the same quantity of blood. Then, as the weights of any two portions of the same liquid are as their volumes, we have—

$$w : W :: h : H; \text{ and consequently}$$
$$wH = Wh$$

Now Dr. Haughton's method consists in calculating wH, and mine consists in calculating Wh quantities, which are necessarily equal, so that the two methods must in all cases lead to the same result.

I have thus shown that the solution of the problem of the heart's action proposed by Dr. Haughton is, so far as it goes, essentially and necessarily the same as that which I laid before the profession nearly two years ago, and I now proceed to show that Dr. Haughton's solution, although capable of determining accurately the mechanical equivalent of the work done by the heart, cannot be employed to determine more minutely the work which the heart actually performs, and misleads us when we attempt so to employ it.

To determine the work actually performed by the heart is a problem quite different from that of determining the mechanical equivalent of the work done. The very same effective force is required to raise one pound to a height of ten feet, as to raise ten pounds to a height of one foot, or five pounds to a height of two feet, or two pounds to a height of five feet. In all of these cases, and others innumerable if we descend to fractional numbers, the mechanical equivalent is the same, or ten-foot pounds; but the operations themselves are very different, and with respect to any organ acting in the living body, or any inanimate machine, we would not rest satisfied till we knew which was the operation it actually performed. Now it is just so with respect to the heart. There are questions in physiology, as Dr. Haughton has shown, to answer which the mechanical equivalent of the heart's action, or the total amount of its effective force, is all that we require to know. But there are other and more important questions for which that meagre knowledge is insufficient. The physiologist wishes to know, not only the amount of the effective force of the heart, but also in what precise way or ways that force is expended within the body. What is wanted will be better understood when I say that the effective force of the heart communicates to the blood its momentum, and that the momentum of the blood is expressed by $(q \times v)$ the mass of blood which is set in motion multiplied by the velocity with which it moves. Now we should at once attain our end if we could determine the respective values of q and v. But it is just because we cannot do so directly, that we are obliged to have recourse to empirical formulæ. But such formulæ are only valuable as they agree, term to term, with the rational formula $(q \times v)$. Now Dr. Haughton's formula $(w \times H)$ and mine $(W \times h)$ cannot both agree, seeing that the terms are inverted—that which expresses the mass moved in the one, expressing the velocity in the other. We must judge, therefore, which of these formulæ gives the most probable view of the moving mass and velocity of the blood. Taking Dr. Haughton's data, and viewing them in the light of his own formula (wH), we have 3 ounces of blood moved over 9·923 feet at each beat of the heart, or with an initial velocity of very nearly 750 feet per minute; which is manifestly a *reductio ad absurdum*. But if to the same data we apply the formula (Wh), we invert the ratio of the mass to the velocity, and find 30·2 ounces of blood moving over ·985 of a foot at each beat of the heart, or with an initial velocity of 73·875 feet in the minute; which, though a high rate, is no longer so extravagant as to be incredible.

In conclusion, I may be allowed to say that I am still inclined to think favourably of my own more moderate estimate—that the heart at each contraction exerts a force which would be in equilibrium if counterbalanced by a weight of 22 ounces + 129·28 grains. The mode in which this force is expended is most easily explained by supposing that we have a tube 88 inches in height and ·4187 of an inch in base, that this tube is exactly filled with blood, and that at each contraction of the heart two additional ounces are forced into it at the lower end, lifting the whole column over a space of 8 inches, and causing an equal overflow at the top. This represents accurately the labour of the human heart, and supplies us with two numbers to express it: the one, 22 ounces, being the weight of the column of blood; and the other, 8 inches, the space over which the column is lifted. The former of these numbers denotes the resistance that has to be overcome in forcing two ounces of blood into the aorta, and pushing before it the whole mass of blood in the bloodvessels; the latter, again, denotes the velocity with which the blood issues from the heart. Multiplying these two numbers together, we obtain the momentum which the heart communicates to the blood—22 ounces moving with a velocity of 8 inches during the period of a pulsation, or of 10 inches per second, or 50 feet per minute. This is equivalent to 176 ounces (22 × 8) lifted one inch, or 14·66 ounces lifted one foot, during the period of a pulsation; or of 65·9 foot-pounds in a minute, or 42·3 foot-tons in twenty-four hours.

P.S.—The facility with which the force of the heart, in whatever aspect we choose to contemplate it, can be obtained from the weights and volumes of the columns of blood at *A*, *B*, *C*, which have severally a basis of ·4187 of an inch, seems to me to show well the importance of assuming the area of the ventricular orifice of the aorta as an element in computing the force of the heart.

A is the calculated hæmastatical column.
B is the observed hæmastatical column.
C is a column equal in volume to the capacity of the left ventricle of the heart.

	Weight in oz. av.	Volume, as height of column, in inches.
A =	22·301	..... 89·165797
B =	22·	..... 88·
C =	2·	..... 8·

Force of Heart.

1. Statical equivalent = A = 22· ounces + 129·28 grains.
2. Dynamical equivalent = $B \times C$, the weight of the one into the volume of the other.
   $\left.\begin{matrix} 22 \times 8· \\ 2 \times 88· \end{matrix}\right\}$ = 176 inch ounces = 14⅔ foot ounces.
3. Momentum of blood as emitted from heart,
   = weight B × volume C = 22 ounces moved over a space of 8 inches at each pulsation, or with a velocity of 10 inches per second.

Glasgow, Oct. 1870.

ON THE

SIMULATION OF HIP-JOINT DISEASE BY SUPPURATION OF THE BURSA OVER THE TROCHANTER MAJOR.

BY ROBERT MACNAB, M.D., F.R.C.S. EDIN.,
SURGEON TO THE SUFFOLK GENERAL HOSPITAL.

I READ with much interest Mr. Teale's paper on the above subject in THE LANCET of Oct. 9th, and as I have just met with two instances of evidently the same disease, perhaps a brief history of the cases may be deemed worthy of record.

CASE 1.—Geo. P——, a highly strumous boy, eleven years of age, born in India, and the child of an officer in the Indian army. In March last, while playing at "see-saw" with his brothers, he was struck forcibly on the left hip by the end of the plank on which he had been riding. Next morning he complained of pain over the seat of the blow, and I was asked to see him. I found the left hip over the trochanter major slightly swollen, hot, and painful on pressure; walking also gave him pain; no constitutional disturbance. Ordered rest and fomentations. This treatment was continued for a week, with the result of lessened pain, but no change in the swelling over the trochanter, which seemed rather to have increased, extending farther down the thigh, and becoming more brawny to the touch. The groin also had become slightly swollen, and there was stiffness in the joint generally. Ordered perfect rest in the horizontal position, with the application of a succession of blisters over and around the trochanter major (the actual cautery being objected to), with the syrups of the phosphate and iodide of iron and cod-liver oil internally. This treatment was followed at the end of a month by the daily application of the compound tincture of iodine to the entire hip.

May 6th.—No good resulted from the above measures, and the case now simulated in a marked degree the first stages of morbus coxæ; the thigh being slightly flexed upon the pelvis, the knee adducted, and the limb generally emaciated, with decided simulation of lengthening. On comparing the hips, the convexity of the left is found flattened, the trochanter major of the same side being much more prominent, rounded, and lower than the right. No weight can be put upon the affected limb; in attempting to do so, pain is immediately complained of, not in the joint, but over the trochanter and upper part of the thigh. Still no pain on pressure over the head of the femur, nor on sharply striking the heel or knee towards the hip-joint. I straightened the limb under chloroform, and applied a long splint; no extension made, the splint being kept in position by placing its lower end between two upright pieces of iron fixed on a flat square board.

July 1st.—Patient's general health beginning to give way. The splint was removed a week ago, having been applied more than six weeks. No improvement perceptible. Swelling over trochanter undiminished; simulated length-

ening, with complete immobility of limb on pelvis, still present. No pain in joint on knocking heel. Ordered to the seaside, a thick leather splint, with an aperture cut in it over the trochanter, having been carefully applied before his departure.

I confess I now looked upon the case, as did also another medical man who saw the patient with me, as a well-marked example of hip-joint disease, having up to this date inclined to consider it as originating in periostitic inflammation ending in caries or necrosis; and from the extremely depressed state of the boy's general health, I had grave doubts as to his ultimate recovery.

Sept. 12th.—I was suddenly called to the seaside to see my patient, having heard nothing of him since he left home. I learned that the leather splint had been discarded two or three weeks after his arrival at the seaside; that he had gradually got from a Bath chair to crutches; that three days before my visit, after an unusually long walk, the swelling over the hip had suddenly become exceedingly painful, rapidly increased in size, and burst, discharging a large quantity of pus.

On examination, I found a circular opening about the size of a shilling, having a quantity of flabby, fungoid-looking granulations protruding from it (the appearance of these growths alarmed the boy's mother very much, and were the cause of my being sent for) over the tip of the left trochanter major. The probe detected no *bare* bone, but the finger could be *passed down to the bone* into a cavity of considerable size, extending all round the trochanter, and dipping deeply behind the femur. The tendon of the gluteus maximus could be distinctly felt in the cavity. I was struck with the marked improvement in the patient's general health. The affected limb could be moved freely without giving the slightest pain; and, on being asked if he could walk without his crutches, he quickly threw them aside and went rapidly across the room, showing the least possible halt in his gait. Ordered carbolic acid to be injected into the cavity of the abscess three times daily, and to be applied as a dressing to the external wound; and a prolonged residence at the seaside.

Oct. 10th.—Seen patient to-day. Returned from the seaside a week ago. Wound over hip much diminished in size; granulations healthy; little discharge. Thickening of upper part of femur all but gone. Motions of limb perfect; only a slight limp can be detected in his walking. Advised to continue use of crutches a little longer.

CASE 2.—Mrs. C——, a fair-haired, bright-complexioned, married woman, twenty-two years of age. Has enjoyed good health till about six months ago, when, without being aware of receiving any injury, she became sensible of a severe pain in the left hip over the trochanter major. The pain going on increasing, and being followed in a short time by swelling of the part, she consulted several surgeons, who all pronounced her to be suffering from the first stage of hip-joint disease, some ordering rest and blisters, others leeches and fomentations. Deriving no benefit from the above treatment, she applied for admission to a hospital, and was received as an in-patient on the 3rd of July. Here opinions varied as to the precise nature of her malady; some members of the staff considering the case to be one of deep-seated abscess, the result of periostitic disease in the neighbourhood of the trochanter major and upper part of the femur; others that it was an undoubted instance of morbus coxæ. While in the hospital she was treated by repeated counter-irritation, with chalybeates and cod-liver oil internally. Becoming discontented with the slow progress of her case, she was discharged from the hospital at her own request, and against the wishes of her medical attendant, on Sept. 13th.

On the 15th of September she came under my observation, when her case presented the following symptoms:—Left thigh slightly flexed on the pelvis; hip-joint perfectly fixed, the thigh being firmly grasped by the patient, and moved with the pelvis, on her being asked to attempt to turn herself in bed. Over the trochanter major, and involving the whole of the upper third of the thigh, was a large, tense, acutely painful, and obscurely fluctuating swelling. *No pain complained of on pressing the articulating surfaces of the hip-joint together.* On supporting the patient in the erect posture the left hip appeared flattened, the trochanter major of the same side being more oblique, bulging out more than the right; and there was well-marked simulation of lengthening of the limb, the foot being slightly everted. Excruciating pain was complained of on putting the gluteal and muscles of the upper part of the thigh on the stretch by the patient's attempting to rest in the slightest degree on the affected limb. There was great constitutional disturbance. The patient had not slept for several nights; tongue dry; teeth covered with sordes; pulse 130.

18th.—Feeling convinced from the woman's general appearance, previous and family history, and several of the foregoing symptoms, and having so recently seen such a similar case, that the disease was *not* in the hip-joint, she was put under chloroform, and an incision about two inches and a half long was made a little below the trochanter major, and down to the bone. A pint and a half of healthy-looking pus escaped. Great relief followed the operation. No bare bone could be detected by probe or finger, but a large cavity could be felt over, around, and behind the trochanter major, dipping deeply behind the femur into the adductor muscles on the inner side of the thigh. While under chloroform a careful examination of the hip-joint was made. No disease could be detected, and the thigh could be freely moved on the pelvis in all directions. The cavity of the abscess to be washed out twice daily with carbolic-acid lotion, and carbolic-acid dressing applied externally.

19th.—Patient looking well and cheerful; had a good night. Thigh much diminished in size; pain quite gone. A copious sanious discharge from the cavity of the abscess. Can flex the thigh on the pelvis with considerable freedom. Carbolic-acid dressing and injection to be continued.

22nd.—Still improving; discharge from the wound much less; induration around the trochanter diminishing.

Oct. 11th (three weeks after operation).—Since last date patient has gone on rapidly improving; sits up daily, and, with the aid of a stick, walks about the room. Little or no discharge from the wound, which is contracting and granulating kindly.

It appears to me that the foregoing cases agree in so many points with those recorded by Mr. Teale, that they must be examples of the disease he describes; and although in the first case recovery took place without division of the tendon of the gluteus maximus, the evidently active part it plays in keeping up the disease having been entirely unsuspected by me, in the second, from the position and extent of the incision made, the gluteal tendon must have been divided, if not entirely, at all events in part, and thus account for the speedy cure.

Bury St. Edmunds, October 12th, 1870.

A NEW DIGESTIVE:

BEING A COMBINED SOLUTION OF PEPSINE AND PANCREATINE.

BY RICHARD JOHN KINKEAD, B.A. & M. T.C.D., &c.,
Tuam, Co. Galway.

THE value of pepsine as a remedial agent in cases of indigestion is generally admitted. But practice and experiments prove, what theory would have led us to predict, that it is only in certain forms of indigestion that it is of use.

Food is divided into two distinct classes—nitrogenised and unnitrogenised. The former is digested in the stomach, the latter in the intestine. The former is acted on by pepsine, whilst the latter escapes its action almost altogether. As far as we know at present, the only action pepsine, as it appears in the gastric juice, has on fat is to dissolve the albuminous cell-wall, and so leave the fat free to be acted on by the pancreatic secretion. This action of gastric fluid on fats suggests what may probably cause fatty indigestion, independent of any functional or organic disease of the pancreas. For the gastric fluid being deficient in quantity or quality, the albuminous cell-walls of the fat may not be dissolved; the fat cannot be acted on sufficiently by the pancreatic secretion, the cell-wall intervening, and consequently is not emulsified and cannot be taken up by the lacteals. On the other hand, disease of the pancreas or intestine, functional or organic, checking

the absorption of fat, may cause indigestion, which will not be cured by pepsine.

As pepsine does not cause the fats to be digested, this indigestion, so common in phthisical cases, requires pancreatine, the action of the pancreatic secretion being chiefly the emulsifying of fats. This has long been suspected from the connexion observed between disease of the pancreas and the discharge of fatty and oily matters from the intestines. But latterly its emulsifying powers have been proved by Dr. Dobell, as evidenced in the pancreatic emulsion of fat which he introduced; and I think I am not saying too much when I affirm that the experiments of Mr. Long, which I subjoin, not only distinctly prove its emulsifying powers, but also demonstrate clearly the part it plays in the digestive process. It is evident that, there being two classes of food to be digested, and each by different portions of the digestive tract, the more perfectly one is performed the more easily will the other be effected.

For instance, let us suppose the stomachic digestion to be weak: the fat-granules are not set free as perfectly as they ought from their cell-walls, the fibrine &c. is not as perfectly dissolved as it should be, and in consequence an imperfectly formed and badly mixed chyme is passed into the duodenum; the pancreatic secretion cannot do its work properly; the intestines have a partially formed emulsion presented to their lacteals; and, in addition, undigested lumps of nitrogenised food not only hinder the emulsion being applied to the lacteals, but also the irritation occasioned by these undigested particles causes a quantity of mucus to be poured out, and the contents of the bowel to pass too rapidly along to permit of a proper absorption.

So far for the effects of stomachic indigestion. Now let us see what may be the result of intestinal indigestion on stomachic digestion. The emulsifying of the fats, as they pass from the stomach, being imperfectly performed, the emission of the fat through the pylorus is checked, and consequently the food is detained longer in the stomach than is right; the proportion of fat to fibrine is increased, the fat enveloping the nitrogenised food hinders the action of the gastric juice, and acidity and stomachic indigestion are produced.

It is evident therefore that, in treating stomachic indigestion, it is important to accelerate the digestion of fatty and saccharine portions of the food: and in intestinal, to accelerate and perfect the digestion of the albuminoids. There are also cases in which digestion of both the nitrogenised and unnitrogenised food is at fault.

Accordingly, being impressed with these ideas, when some time since my friend Mr. Long sent me a sample of his solution of pepsine in glycerine, asking me to try it in practice and give him my opinion upon it, it appeared to me that a solution of pepsine and pancreatine, combined in suitable proportions, would fulfil the conditions necessary to form a perfect digestive. I therefore wrote to Mr. Long, and suggested to him the preparation of a combined solution of pancreatine and pepsine. The results of our correspondence and conversations on this subject I can best lay before the profession by publishing the following letter from Mr. Long. My own experience of the combined solution is limited but satisfactory.

Dublin, Sept. 12th, 1870.

MY DEAR DR. KINKEAD,—Following up the subject of our conversations some time since, I have been making experiments on pancreatine obtained directly from the fresh pancreas of the calf. The result has been quite what might have been expected from *a priori* reasoning, as you will see from the subjoined statements.

Some difficulty was experienced in obtaining the solution of pancreatine in an eligible form for administration; but at last I succeeded in producing what as closely as possible represents the digestive fluids found in man. It is composed of pepsine and pancreatine in suitable proportions, using for the former a solution of pepsine introduced by me some time ago, and adding the solution of pancreatine as now prepared.

In the experiments made to test its effects a very curious result was observed. Meat—beef and mutton—digested in pepsine alone was found to be entirely dissolved with the exception of the fat, which floated as a film on the surface, and this film was entirely emulsified when a proper quantity of pancreatine was added, and the usual conditions as to temperature &c. attended to. This is exactly what we would expect, reasoning from known physiological principles. The fibre of meat, gelatine, &c., are dissolved in the acid secretion of the stomach, and pass with it through the pylorus into the duodenum, where the fatty matters, already softened or melted, are emulsified by the secretion poured from the pancreatic duct, converting the whole into the milky fluid, chyle, fit to pass into the lacteals.

I need not expatiate on the benefit of having at command a remedy of this kind in cases of emaciation, depending on any cause, but more particularly on mal-assimilation; any remarks of this kind will more properly come from the practising physician. I will merely observe that, as one of the principal difficulties in treating functional or organic diseases of the stomach is the almost impossibility of affording the rest so essential for repair or recovery, the next best thing is, obviously, to give that organ as little to do as possible. By means of the combined solution of pepsine and pancreatine we can artificially digest a considerable quantity of the necessary food, and by so much diminish the work to be done by the part requiring time to recruit.

Pepsine in an effectual form has been a great boon, but, as I have shown above, it will not digest the oily or fatty aliments; and we fail thus to supply the system with those substances demonstrated so clearly by Dr. Horace Dobell and yourself to be vitally necessary in strumous diseases. It is very obvious how desirable the action of this fluid will be as an addendum to the use of cod-liver oil. Many patients will be able to take it with benefit without those horrid eructations hours after being taken, arising from the inability of the stomach to digest it, thereby causing dyspepsia instead of increased nutrition.

The pancreatic emulsion, which has been of such signal benefit in your hands and others since first introduced by Dr. Dobell, has never seemed to me the nicest or most eligible mode of effecting what is desired. It is nauseous to the taste of many, and often keeps badly; and the quantity of mutton suet employed, which may be supposed to be all the fatty matter the pancreatine present is capable of emulsifying, is not as much as might be desirable in many cases. In some, suet at all may not be the most suitable form of fat. The fluid I now describe is very palatable, as you may observe, and will keep almost any time. It may be given with any kind of food. My experiments were made with fat mutton-chops and rich beef-steaks, as typical aliments, with most satisfactory results. I append a brief statement of the quantities, which you can use in any way you like, as also this note.

The first experiments, thrice repeated, were made with muriatic acid, water, and the combined solution, to represent the gastric juice, and pancreatic secretion. The second, with solution of pepsine alone, with acid and water, followed by the addition of the plain pancreatic solution after an interval of two hours. Both were entirely satisfactory; but the latter were peculiarly interesting in a physiological point of view, as stated above, and tend to show the exact part played by each fluid in the animal economy. But as the administration of two fluids in succession would be troublesome in practice, and be scarcely attended to by patients (at all times averse to trouble), I have thought it desirable to mix the two in one fluid. This has the advantage of being quite agreeable, as liquor of pepsine always is; while liquor of pancreatine not being so, its taste is entirely concealed by the former. Some medical friends of mine, to whom I have given a little of the small quantity made hitherto, have, you will be glad to hear, reported most favourably, after trial in practice. I also sent a bottle to you some short time ago, which I hope you have had an opportunity of testing fairly.

The experiments in the laboratory were as follows:—

No. 1.—Mutton (fat and lean about equal parts), one ounce; water, one ounce and a half; muriatic acid, fifteen minims; solution of pancreatine and pepsine, one drachm. Digested at 100° for four hours, this was converted into a homogeneous pulp, and, when diluted with a little water, presented quite a *chylous* appearance.

No. 2.—Beef (fat and lean), an ounce and a half. Treated in same way, with same result, the pulp being much deeper in colour.

Nos. 3 and 4.—I then operated on the same quantities of each, first digesting with pepsine solution alone, as intimated above, and then adding the liquor pancreatine—keeping up the heat. In these latter experiments the re-

sult seemed more perfect, but, as I have said, the same procedure would be rather inconvenient in practice.

The results were found to be identical in three successive experiments, at intervals of several weeks.—Yours faithfully,

EDWARD LONG.

ON A CASE OF

INDUCTION OF PREMATURE LABOUR,

AND EXTRACTION OF THE PLACENTA TEN DAYS AFTER THE EXPULSION OF THE FŒTUS.

BY CHARLES ROBERTS, M.R.C.S., &c.

THE following case tends to prove the great advantage to the poor of cottage hospitals; and also helps to bear out the remarks of Dr. Playfair at a meeting of the Obstetrical Society, reported in THE LANCET of Oct. 22nd, that "retention of secundines was most likely to occur in the third and fourth months."

The patient, aged thirty-nine, has for years had contraction of the pelvis, and of four of her children that are now living she has been delivered by forceps. More than two years since, having gone her full time, it was found impossible to deliver with forceps, and craniotomy had to be performed, after which she was delivered with difficulty. About fifteen months ago, being then five months pregnant, premature delivery was induced by puncturing the membranes, and all went well.

On the present occasion, being again gone in the family-way between three and four months, I introduced on the 26th of July a sea-tangle tent into the os uteri. This was retained till the 29th, when it was expelled. Next day I introduced another, which was expelled the following day. On August 1st I introduced a third, and in the evening the membranes ruptured, and liquor amnii escaped. Ergot was then given every four hours; but it was not until the 4th that regular pains made their appearance, and the funis descended into the vagina. On the 5th I sent her to the Hillingdon Cottage Hospital, and on that day soon after admission the fœtus was expelled. I saw her within an hour, and found there was no effort to expel the placenta, and the os uteri so closed as to barely admit the tips of two fingers. Not a drop of blood had escaped. All my efforts to get at and remove the placenta failed, although I tried again that evening and also the following morning; so I had to content myself with giving several doses of ergot, and await the course of events. Things went on in this condition for six days. She improved in health, and there was not the slightest bloody or fetid discharge. On the night of the 11th July, however, some considerable quantity of blood and several clots passed. The nurse did not call me, thinking the placenta was among the clots. This, however, I found not to be the case, and gave her directions to send immediately if fresh hæmorrhage occurred, in the hope that from loss of blood the os might yield, so as to admit of my extracting the placenta. At 11 P.M. on the 15th, fresh hæmorrhage to a considerable extent took place, and she became faint. I was then able to introduce two fingers into the uterus with much difficulty, and found the placenta firmly attached on the left side of the fundus, but succeeded in detaching and removing the whole piecemeal. The operation took *two hours*. On the evening of the next day symptoms of peritonitis showed themselves, but were quickly allayed by opium and turpentine stupes. From that time she made a rapid recovery, due in a great measure to the constant attention, good nursing, and diet, which she could not have had at home.

Uxbridge, October 31st, 1870.

AUTOPSY OF A CASE OF CYANOSIS.

BY W. H. SHEEHY, L.R.C.P. ED., M.R.C.P., &c.

M. M——, aged sixteen, was seized, in going upstairs, after she had partaken of supper, with a fit of giddiness with sickness and vomiting. She was assisted into her room, and on being placed on the bed fainted, as her mother thought, and I was at once sent for. I found her dead, with dark purplish-blue colour of body and face generally. From the parents' statement I gleaned that she had been examined by two medical men at separate intervals, both pronouncing her case to be heart malformation, due to the existence of "a passage between the auricles." I had never attended her. Owing to some opposition on the part of the parents, the post-mortem was delayed, and decomposition had set in considerably.

Autopsy, seventy-two hours after death.—Rigor mortis almost complete. Body apparently well nourished. No marks of violence. Intense purplish-blue colour of face and body. Venous blood oozing from mouth and nose. General emphysema of subcutaneous areolar tissue; felt like lung-tissue. Scalp deeply congested. On removing the calvaria there was an escape of a large quantity of black, venous blood,—nearly a pint I should think. Dura mater contained extravasated blood; brain-substance less firm than in health; sinuses contained black blood. The pleuræ were adherent throughout. Lungs congested and emphysematous. Areolar tissue of mediastinum emphysematous. Pericardium contained about a teacupful of dark-coloured fluid. Heart congested, large, and flabby, and was empty, with the exception of a small clot in right ventricle, weighing twenty ounces. Foramen ovale closed, having two transversely oval foramina, about the size of a large blanket-pin's head, about its centre; on making the membrane tense transversely, their edges were brought into apposition. Ventricles considerably hypertrophied, with some degeneration of the substance of the walls. The septum was occupied superiorly by an abnormal aperture the size of a florin, allowing communication between the ventricles. This foramen was partially closed during systole by a membranous prolongation of the lining membrane in the form of a lunated valve, the concavity being directed towards the apex, and connected to the walls of the ventricle at its free edge superiorly by fasciculi resembling cordæ tendineæ. Valves healthy, but somewhat thickened; pouch of Valsalva enlarged. Abdominal viscera generally congested.

There can be no doubt that death was caused by the exertion of walking up-stairs (having always been carried previously), paralysing the heart with præcordial oppression, &c., which, from the distended state of the stomach with food, produced vomiting, by irritation of pneumogastric nerve; the effort rupturing the already over-distended superior longitudinal sinus, causing extensive extravasation of blood between surfaces of the dura mater, and pressure of brain (venous apoplexy).

Claremont-square, September 1st, 1870.

A Mirror

OF THE PRACTICE OF

MEDICINE AND SURGERY

IN THE

HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

THE OPERATION OF SKIN-TRANSPLANTATION; CLINICAL REMARKS.

By Mr. POLLOCK.

ON the 3rd inst. we were present while Mr. Pollock performed the operation of skin-transplantation which he has introduced into this country. He pointed out that the sore on which he was about to operate, which was a rupial ulcer, presented a feature which was, in his experience, frequently to be observed in ulcers of that nature, and possessed a special interest in connexion with the question of skin-grafting—namely, a number of central points of cicatrisation pre-

cisely similar in their character to those obtained by operation. When first seen, the skin is to all appearance completely destroyed from the surface of these ulcers; but after a time centres of skin-growth not unfrequently make their appearance, and by their subsequent increase contribute largely to the repair of the ulcer. In the present instance three such centres had appeared spontaneously: one of them had coalesced with the margin, the remaining two with each other in the centre. About twelve portions of skin were taken from the front of the forearm with dressing forceps and scissors, and placed in three horizontal rows on the ulcer, each row being held in position by a separate piece of strapping. They were oat-shaped, from two to three lines in length, and involved the entire depth of the skin; their removal exposing, in some instances, the fascia of the forearm.

After the operation, Mr. Pollock showed to a number of visitors some of the cases under his care in the wards, among them the patient on whom he first adopted the practice. As will be remembered, this was a child who presented in May last a wound of two years' standing, caused by a burn, involving the lateral aspect of the buttock, the whole of the same aspect of the thigh, and the outside of the knee down to the situation of the head of the fibula. This large surface, which, under the most favourable circumstances, would not, in Mr. Pollock's opinion, have otherwise healed for many years, and had, indeed, come to be looked on as almost beyond the possibility of repair, is now all but completely covered with new skin, although, during the first few months of the new treatment, the transplantations were few in number, and made under all the disadvantages of a first experiment.

It is much to be regretted that the piece of negro-skin, which attracted so much attention a short time past, when the humaneness of the operation was called in question, was swept away about a fortnight ago by some phagedænic sloughing which attacked the part of the cicatrix in which it was situated.

In connexion with this case, Mr. Pollock said that in cases of burns the transplantation should be effected as soon as the granulations assume a healthy appearance. In the course of two or three days the layer of superficial epithelium which has nearly fulfilled its function, and would, in the ordinary course, soon have been shed, is frequently cast off; in a few days more, beneath the surface thus laid bare, the layer of living cells, a network of vessels can be seen by the aid of a two-inch glass, and shortly afterwards a pale film begins to spread from the circumference. In the course of a few weeks after the first appearance of the film, the new skin becomes endowed with sensation. In that which was propagated from the skin of the negro, pigment began to be developed at about the same date, as shown by the spread of a change of colour in a gradually increasing surface of crescentic form. Mr. Pollock believes the whole process to be one of simple cell-growth.

The practical gain of the operation is, he said, that by its aid large surfaces can be made to heal in an incomparably shorter space of time than they otherwise would, and that they do so almost independently, and with the least possible contraction, of the marginal cicatrix. And thus, even if the skin contributed by the transplanted centres prove to be no more endowed with yellow elastic fibres than is a cicatrix which has grown solely from the margin, and should undergo some subsequent contraction, that proportion of distortion which inevitably follows from marginal contraction is almost entirely avoided.

Mr. Pollock added that he was not aware whether the new skin in these cases is endowed with sweat-glands, and insisted that a healthy condition of the granulating surface is essential to the success of the operation, confirming the observation by the case of a child with a large, unhealthy granulating surface, resulting from a burn in the chest, into which a number of pieces of skin were grafted about two months ago, which up to the present time have remained as pale, semi-transparent spots, without the least marginal increase.

Provincial Hospital Reports.

LEEDS GENERAL INFIRMARY.

CASES OF INTRA-CRANIAL DISEASE; WITH OPHTHALMOSCOPIC OBSERVATIONS.

(Under the care of Dr. CLIFFORD ALLBUTT.)

THERE are now, or lately were, in Dr. Allbutt's wards, three cases of encephalic disease, all of which were attended with secondary changes in the eye, and which well illustrated the manner in which such changes are brought about. The three cases were instances of encephalic tumour—of tumour presumed, indeed, in two cases, but with little likelihood of error, and in the third case actually discovered post mortem. In all three there was serious defect of vision; in one, in which blindness was nearly complete, no ophthalmoscopic examination could be made.

The first case was supposed to be an example of cerebellar tumour. The patient had suffered for two years from gradually increasing attacks of headache and vomiting. These attacks were now of intense severity; they recurred every two or three days in terrible paroxysms of headache, chiefly occipital, and were attended with vomiting. Though almost beside herself with pain during the paroxysms, the patient was quite rational during the intervals. Latterly her sight had failed so far that she could do little more than distinguish the features of those about her. There was no other symptom, save a certain loss of motor capacity. Dr. Allbutt said that there was no symptom distinctly belonging to cerebellar disease, unless it were a loss, not exactly of power of motion in the legs, but of capacity of motion. Such patients could walk, but had no reserve of walking power. Seen with the ophthalmoscope, the eyes presented that condition called by Von Graefe "stauungs papille." Dr. Allbutt has called this "ischæmia papillæ," or, in English, the "choked disc." It consists in arrest of the venous ebb from the intraocular part of the optic nerve, with increase of connective elements due to prolonged congestion. It is a common concomitant of cerebellar tumour, which compresses the venæ Galeni, causes thus dropsy of the ventricles, and so indirectly a hindrance to venous reflux from the eye.

The second case was that of a woman who entered the house presenting the history and symptoms of a small tumour of the right hemisphere. There was mental palsy from the first, with slight left hemiplegia creeping on shortly before death. Vision was much lost, and optic neuritis was found. Dr. Allbutt pointed out the distinction between optic neuritis, which takes origin in an inflammation of the sheath and trabecular tissue of the optic nerve, and descends from beyond the eye, and the choking of the disc, which has its origin in stoppage of the veins. Optic neuritis means meningitis, while the choked disc means pressure; and a diagnosis was therefore made of a small tumour in the right hemisphere, and probably a superficial tumour in the anterior lobe, because any concurrent meningitis would, in this case, be near the optic nerves. At the autopsy several small gliomata, varying from the size of a hempseed to that of a marble, were found. The small ones were clustered like tubercular masses, for which they were at first mistaken. There was meningitis spreading down along the base from the most superficial part of the mischief, and involving the optic nerve.

The third case was presumed to be one of tumour of the right middle lobe, involving the central ganglia. Tumours in this region, however, do not generally involve the optic nerves, unless they are of large size. The woman went out of the hospital before death.

Among the out-patients, Dr. Allbutt has often drawn attention to two other cases: one of paralysis agitans, and the other of disseminate sclerosis. In the former, a man of about forty-seven years of age, shaking palsy began in the right side about eighteen months ago, but soon invaded the left side also. At present the right side is in continual and evident tremor, more so when at rest, and less so during voluntary effort. The left side is much less severely affected. No cause can be ascertained, the man being temperate, and otherwise apparently of sound

constitution. This disease is not generally attended with perturbation of the optic nerves, and the discs of the patient were shown to be healthy. Such, however, is not the case with G. A——, a patient who has been in attendance for about two years, and who has served as a standing example to the students of disseminate sclerosis, or "sclerose en plaques." Sclerosis of the optic nerve, or "white atrophy," is a frequent symptom or concomitant of sclerosis elsewhere in the encephalon, and in G. A—— it was an early indication of the mischief to come. Before the other nervous symptoms fully developed themselves, the atrophy set in, and for its relief he sought the aid of several ophthalmic surgeons, by whom no doubt the case was recorded as independent amaurosis, or as "tobacco amaurosis." At this time, however, the symptoms of sclerosis of the centres were insidiously creeping on, and are now being evident in the waning power over his limbs, the legs especially, and in the tremor called forth by every attempt at voluntary movement, the limbs at other times being at rest. There is also nystagmus.

Two very interesting cases of ptosis have likewise attended of late. In one, a boy of about ten, there is paralysis of the third nerve throughout, and both eyes are affected. The optic nerves are also in the second stage of atrophy, and the whole is a result of meningitis following severe enteric fever. The second case occurred as follows, in a very intelligent little girl twelve years of age. Nine days before admission she "turned dizzy" for a few seconds, and on recovering herself the left eyelid had fallen. On admission there was complete ptosis of this eyelid, but no mydriasis, nor any squint. All other parts were normal, and the general health was good. On presenting herself the following week she said that the day after the former attendance she was seized with a sharp pain in the left temple, and the eyelid rose. On inspection, the levator and orbicularis were perfectly normal, and the girl was only detained on the books for the sake of a few weeks' watching. She was a simple, quiet, truthful child, wholly devoid of deceit or of morbid fancy. Had electricity been used on the first visit, as Dr. Allbutt had intended, that means would have been praised for virtues not its own. The former case, the little boy, has been discharged incurable: there was no response to faradism in the affected muscles.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOV. 7TH, 1870.

MR. GAY, PRESIDENT, IN THE CHAIR.

AT the early part of the meeting on Monday several interesting short communications were made to the Fellows, specially by Mr. J. D. Hill, and Mr. Henry Smith. Mr. Hill exhibited a young woman on whom he had performed primary excision of the knee-joint, for an injury which had torn the joint open to the extent of three or four inches. The patella had been removed, together with the articular surfaces; long collapse followed, but the woman rallied, and solid union of the bones had taken place at the end of five months. The woman had since had fractured tibia, but that had re-united now. Mr. Hill likewise showed a patient, aged twenty-three, who had had an Aneurism by Anastomosis in the right temporal region, following a blow received a year before. The occipital, temporal, and posterior auricular arteries were tied, but the pulsation continued. Acupressure was then used, and eventually a ligature was employed to the mass, which sloughed away, the wound healing rapidly.

MR. HENRY SMITH then made some observations on the excellent results he had obtained from Puncture as a means of giving relief to an Inflamed Testicle. The plan had served him well in about 500 cases. The relief obtained was immediate and permanent, and he believed arose from division to a small extent of the tense and unyielding tunica albuginea. The small amount of blood lost had nothing to do with it.

MR. ADAMS suggested that subcutaneous incision would show if the success were due to the mere relief of tension.

MR. WICKHAM BARNES had been consulted by a patient in consequence of the severe irritation that had followed the puncturing of the testis.

MR. ROYES BELL had seen a jet of serum spurt out in puncturing an acutely painful testis, with instant relief.

The paper of the evening was by Dr. SANSOM, "On Putrefaction, Fermentation, and Infection." He maintained—1. That putrefaction and fermentation are each due to the influence of living, growing, and multiplying material. (a) Fermentation is the result of the vital acts of particles of vegetable protoplasm in an organic fluid of uniform composition, the particles assuming distinct morphological forms according to the nature of the fluid. (b) Putrefaction is due to like influences exerted upon organic matter of a more complex or a mixed kind. 2. The atmosphere contains minute spores, ova, and particles of protoplasm, which it wafts from place to place. These are, for the most part, perfectly harmless. 3. The diseases of infection are due to minute particles of living protoplasm, which are transmitted by physical intermedia; are capable of reproduction within the recipient organism, and are excreted in vastly increased numbers. 4. Infecting molecules present the complex reactions of living beings, and though they resist certain physical influences, they are destructible by others. Slight chemical or physical disturbances may destroy them. 5. Fermentation and infection are alike due to living molecules; but though it is possible that in some cases (cholera, typhoid,) the molecules of fermentation in complex conditions can induce infection, it is far from proved that all the diseases of infection are due to the organisms of fermentation.

DR. RICHARDSON complimented Dr. Sansom on making as good a defence as was possible of his various points. The germ theorists were reducing the germ further and further as their microscopes improved, and what they would eventually descend to as a real germ, no one could yet say.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 1ST, 1870.

DR. QUAIN, PRESIDENT, IN THE CHAIR.

MR. W. ADAMS exhibited a Bony Exostosis which was removed from the angle of the scapula, and had projected between it and the ribs, so as to cause much difficulty in coming to a correct diagnosis. The growth was supposed at first to be enchondromatous; it began when the patient was two or three years old, and the operation for its removal was performed when the child was eleven. It was at first thought that the scapula would have to be removed, but at the operation the growth was easily got at and taken away. It was covered by a thickish layer of cartilage, and was clearly ossified cartilage in the mass. Mr. Adams thought the disease was usually symmetrical, and that it was uncommon to have the cartilaginous layer.

MR. HULKE asked if it is not a fact that exostosis in children, as in the present case, is always distinctly preceded by cartilaginous growth. He had not found the disease, as the rule, symmetrical.

MR. ADAMS was not sure that in all cases cartilaginous growth could be detected preceding the formation of exostosis, especially in outgrowths from the orbit—i.e., ivory exostosis.

MR. NUNN exhibited a specimen of Fibrous Tumour, growing from the internal surface of the Uterus in connexion with atrophy of the uterine walls, but without change in the cervix. It was taken from a woman killed accidentally. Mr. Nunn thought that had she lived the fundus and body of the uterus would have disappeared, and the tumour would have been set free into the abdominal cavity. He also argued for the pathological independence of the cervix and body of the uterus.

MR. MASON showed a congenital Tumour of a warty nature, removed from a young woman's abdominal wall, in consequence of the fetor which was occasioned by the secretion it gave out.

DR. HILTON FAGGE exhibited the Liver and a portion of Skin from the sclerodermic patient, aged sixty-seven, whom he had presented to the Society a year ago. On section, the skin was found to be thickened and considerably indurated, but not to such an extent as he had expected. There appeared

to be hypertrophy of the fibrous elements of the derma, with thinning of the cuticle in some places and thickening in others. The elastic tissue was much in excess of the normal amount. The skin was much tougher than is usual, and hardened, owing to change in the fibro-cellular tissue, probably due to some chemical change. No other internal organ was diseased.

Dr. TILBURY FOX asked if Dr. Fagge had noticed any diseased state of the lymphatics, and was answered in the negative.

Dr. DICKINSON mentioned the particulars of a case at present in St. George's Hospital, in which some good had been done by alkaline baths.

Mr. FAIRLIE CLARKE thought if the perspiration in Dr. Fagge's case had altogether ceased, that might explain the patient's death at least in part.

In reply to Mr. Spencer Watson, Dr. FAGGE said there was no history or trace of syphilis in the case; and, in reply to a question from Dr. Greenhow, said that there was no impairment of sensation at the outset of the case, but only at the fag end.

Mr. ARNOTT exhibited a Cancerous Testicle, covered by a much thickened tunica vaginalis, the disease having been apparently started by a blow. The testicle had never fairly descended into the scrotum. In removing the testicle the peritoneum was opened, but without any serious consequence. Owing to the position of the testicle, some little difficulty was offered to a correct diagnosis.

Dr. MURCHISON said the interest of the case lay in the fact of the disease attacking an undescended testicle—a fact which had been repeatedly noticed before.

In reply to Mr. Barwell, Mr. ARNOTT said the thickened tunica vaginalis had been examined, and it presented the characters of a chronically inflamed fibrous texture. The cancer was of the medullary type.

Dr. DICKINSON also mentioned cases where cancer had attacked undescended testicles.

Dr. DUNCAN showed the parts of a Watch which had been carried and buried into the parts about the hip by a bullet which had passed from before backwards, and outwards through the parts about the crista ilii of the right side. Twenty-one days after the receipt of the injury, a discharging abscess existed, and an exploratory incision was made with the result of finding parts of a watch in the wound.

Dr. WHIPHAM exhibited a specimen from a case in which rupture of the transverse ligament of the atlas had taken place, in connexion with caries of that bone, and in which sudden death occurred. There was coincident extensive hæmorrhage into the arachnoid, for which Dr. Whipham was unable to give a cause.

Dr. GREEN showed a specimen of Aneurism of a branch of the Pulmonary Artery in connexion with phthisis.

Dr. TILBURY FOX exhibited a specimen of Fungus Foot of India, and the bones of the foot from a second specimen sent him from Madras by Mr. Cockerill, who received them from Mr. Wright, the surgeon of the Guntor district. In the first case the disease began in a man twenty-two years of age, two years ago, by a small pimple on the sole of the left foot near the lesser toes, which broke into an open sore. Other sores then appeared, and the foot began to swell. For the past year the man had been unable to walk. There were many fistulous openings leading down to diseased bone, which was partly blackened. When the leg was amputated just below the knee the bones at that part were found to be unusually soft, and yielded readily to the knife. In the second case, the bones of which were exhibited, the disease had been in existence ten years, and it commenced as in Case 1. The leg was amputated just below the knee. The whole of the bones of the foot were in an advanced state of caries. The disease affected the tibia and fibula as well as the tarsal and metatarsal bones; the medullary part of the tibia was infiltrated with a black grumous fluid. Dr. Fox had failed to discover any fungus. This might be accounted for by the fact that the specimen had been a long time in spirit; but he thought that if such extensive disease as existed in the two cases were caused by a fungous growth, then there would certainly be some evidence of the presence of a fungus. The little white masses, that had been described as resembling fish-roe, he had found, and believed they were mainly made up of crystalline fat. He did not deny that a fungus had been found by Dr. Carter, but imagined that its presence was really accidental; and, looking to the history of the cases, the state of the bones, affected as high up in one case as just below the knee, he was inclined to think that the disease rather commenced within and extended outwards, than that a fungus penetrated from without inwards and caused the disease.

After some remarks from Mr. Hulke and Dr. Moxon, who thought that the nucleus of the white roe-like particles was very peculiar in structure, the specimens were referred to Dr. Bristowe, Dr. Fagge, and Mr. Arnott for a report.

Reviews and Notices of Books.

Histoire des Sciences Médicales, comprenant l'Anatomie, la Physiologie, la Médecine, la Chirurgie, et les Doctrines de Pathologie Générale. Par CH. DAREMBERG, Professeur chargé du Cours d'Histoire de la Médecine au Collége de France, &c. Two vols. 8vo. Paris: 1870.

THE learned librarian of the Mazarine library has done a very welcome service to medicine in general by the publication of this epitome of the extended course of lectures on the History of Medicine, which he delivered at the College of France during the four years 1864–67. The study of the growth of physic, and of the modes in which modern has been evolved out of ancient medicine, has in these latter days fallen into the background; and there has been no little danger that, as far as the student is concerned, it might pass out of sight almost altogether. This was an end which, however much it might be deplored, there seemed little hope of avoiding. For even the most enthusiastic medical historiographer and philosopher would hardly have ventured, as things go, to suggest that the history of medicine should enter into the, as it is, sorely overstocked student's curriculum. Moreover, there was no text-book on the subject, at once sufficiently comprehensive and accessible, to meet the need of those students whose energies were not exhausted by the compelled curriculum, and who might be desirous to know something of the history, as well as to master the existing state, of the science to which they had devoted themselves. Now, it is just a text-book of this kind which Professor Daremberg has given to the profession. This work is so comprehensive that, beginning with the dawn of medical science, it carries the history forward to the commencement of the present century. It is so compact that two ordinary octavo volumes contain it. Its learning is not more remarkable than its facile diction and its admirable arrangement. It is, indeed, eminently a book for the student's shelves.

If we look upon the work chiefly with reference to the requirements of the student, it must not be supposed that its utility is limited to his needs. To the medical scholar, we apprehend, the book will prove in the highest degree acceptable, as well from the ideas which have governed its development as from its erudition.

The particular objects which Professor Daremberg seeks to set forth in this work are—the general development of medicine; the determination of the laws which have governed this development, and of the circumstances, bright or obscure, constitutional or accessory, which have retarded or advanced it; the study of the methods which have from time to time presided over the evolutions of the science, in respect of doctrines or systems; and lastly, the consideration of the reciprocal influences which the different branches of medicine have exercised the one upon the other, and upon the march of science.

Two cardinal principles govern the author's method of history. The first is, that the history of the science of medicine cannot be rightly studied apart from the history of the other sciences.

"The radical vice of histories of medicine," he writes, "a

vice which has made them all sterile, is that our science has been considered in its totality or its details as an isolated creation, without connexions or kinship with other creations of the human mind.....To bring the science of medicine back into the circle of the other sciences; to discover a common bond which unites them together, and a common law which explains their progress or their failures, —there is the core of history, there is its life."

The second principle laid down is, that diseases are not *entities*, existences, as it were, superadded to the organism. There is a necessary link between the phenomena of health and the phenomena of disease. Morbid productions and disordered functions, subject to vital forces, are equally with these forces governed by regular and positive laws. The recognition of these laws in their healthy and in their morbid relations, sums up the philosophy of medicine.

Space does not permit us to show the scheme of history Professor Daremberg has worked out upon these principles. One extract only can we permit ourselves, taken almost at random, in illustration of his manner:—

"The history of the discovery of the circulation forms one of the most interesting and instructive parts of the general history of the medical sciences. From it we learn in what fashion errors arise, increase, and cohere so strongly together, that they oppose for ages an insurmountable barrier to the truth; and under what conditions, by what means, with what instruments, and at the price of what struggles, great discoveries are possible. It is reasoning which has most frequently given birth to error; it is reasoning, also, which, far from prevailing against error, has given to it force and audacity. The hatchet of the experimental method was needed for its destruction. No part of history brings more clearly into light the power of routine, the obstinacy of prejudice, the malice and perverse or ignorant stupidity of men enfeoffed (so to speak) of the schools; no part better justifies the beautiful thought of Biot: 'Nothing is clearer than that which was discovered yesterday; nothing is more difficult to perceive than that which may be found to-morrow.' In truth, the phenomenon of the circulation appears to us to-day so simple, and is so generally known, that it is difficult to understand in what manner so many physicians and eminent naturalists, who have succeeded each other during so many ages, can have failed to discover it. But let us not be severe! In an age, in twenty years, to-morrow, perhaps, we may merit the same reproach respecting facts to-day unknown, but which then may have come within the field of observation. Let us not show ourselves so ignorant of the conditions which, in past ages, as under our own eyes, promote or hinder either a discovery or an invention."—p. 582.

We commend Professor Daremberg's work to our readers.

Some Points in the Physiological and Medical Aspect of Sewage Irrigation, with Notes on the recent evidence adduced against Irrigation in the Houses of Parliament. By ALFRED CARPENTER, M.D. Hardwicke, Piccadilly.

FEW persons have had the same opportunities of watching the progress of sewage irrigation as Dr. Carpenter. As a member of the Croydon Board of Works, he has taken part in the contests which preceded the introduction of sanitary reforms in that rapidly-increasing town. He has been a party to all the costly experiments which were tried in order to diminish the nuisances to which the introduction of sewers gave origin. He has been compelled to acknowledge the repeated failure of plans which presented at the moment the fairest prospects of success; and his extensive practice and profound medical knowledge afford the public a high guarantee that his opinion may be taken now that he assures us of complete success.

The pamphlet now published is a second edition of one issued last year on the effects of sewer gases, with additions, in which some of the more important statements recently made to Parliament are carefully examined and refuted. Dr. Carpenter observes that sewage irrigation has had to bear up against onslaughts in a manner similar to that which every other truth has had to submit to. These onslaughts were, as regards Croydon, theoretical and indefinite until 1865, when it was stated that extensive illness had been caused in the neighbourhood of the irrigated meadows belonging to the Croydon Board of Health. Dr. Carpenter proves that sewage irrigation has been carried on in a perfectly safe manner for several years; that the illness which was imputed to the meadows was caused by circumstances totally distinct, and at a long distance, from the sewage farm, and by conditions which were removed as soon as they were manifested sufficiently to the Local Board.

Dr. Carpenter enters very fully and completely into—first, the effect of the sewage irrigation upon the public health of the town generally; secondly, the manner in which it has affected the health of those engaged upon it, and those living in the immediate neighbourhood; and, thirdly, the effect of the effluent water upon those using it for potable purposes. The points referred to include the production of typhus, typhoid or enteric fever, dysentery, epidemics or entozoic diseases, cattle-plague, foot-and-mouth disease, &c.

We have not space to discuss the principles upon which, according to Dr. Carpenter, sewage irrigation should be carried out. We are more concerned to know that, whether those principles be right or wrong, they have not resulted in any of the consequences which had been confidently predicted.

At Norwood there is a very considerable population living within 200 or 300 yards of the farm. Previous to its formation in that district fever abounded, and great complaints were made of the nuisance created by the flow of sewage in the neighbouring ditches. Since then that disease has all but disappeared, and the mortality of the district has steadily declined. The death-rate of Norwood (the population of which is about 5000) for the last seven years, according to Dr. Westall's mortality tables, is as follows:—

1863	18·76	1866	15·34
1864	18·89	1867	14·21
1865	18·17	1868	12·07
(Sewage farm established.)		1869	13·20

At Croydon the death-rate has been:

1867 ... 16·6 ..... 1868 ... 18·36 ..... 1869 ... 17·24

No case of dysentery has been registered, and the few cases of fever are generally found to be due to some local cause, particularly the ventilation of the sewer into the houses instead of into the open air. Dr. Carpenter shows that the sickness which occurred more recently in some cottages near the sewage farm was due to overflowing cesspools and contaminated local wells, and not to the exhalations of the farm, which were carried in an opposite direction by the prevailing wind.

We must refer our readers to the paper itself on other important points, particularly the production of ozone on sewage farms, the propagation of entozoic disease, cattle plague, foot-and-mouth disease, &c. These are subjects which will hereafter be discussed in our special articles on Sewage Irrigation, where the facts adduced by Dr. Carpenter will have due consideration. Meantime, although the production of an enthusiastic advocate of sewage irrigation, we commend Dr. Carpenter's pamphlets to the earnest attention of those who are practically interested in this important public question.

OUR LIBRARY TABLE.

A Manual of Medical Diagnosis; being an Analysis of the Signs and Symptoms of Disease. By A. W. BARCLAY, M.D., Physician to St. George's Hospital. Third Edition, 8vo, pp. 669. London: Churchill and Sons.—This work has now reached a third edition, a fact which sufficiently proclaims

its usefulness. The delay in the appearance of the present edition has been caused by the author's anxiety to bring it into harmony with the nomenclature of diseases issued by the College of Physicians. It contains much new matter, by which its size has been somewhat increased; but this has been rendered necessary in consequence of the rapid strides which medicine has made of late years.

A Guide to the Physical Diagnosis of the Diseases of the Lungs and Heart, together with an Introduction to the Examination of the Urine. By JAMES SAWYER, M.B. Lond., Resident Physician, Queen's Hospital, Birmingham. London: Hardwicke. 1870.—This little book, which professes to give preliminary instruction to the student in the art of gaining professional knowledge at the bedside, may possibly accomplish, in some instances, its ostensible object. It is laboriously written, and abounds in quotations and citations from leading authorities. But we think that it attempts too much. The way to obtain practical knowledge should be more tersely explained, less complicated with very minute distinctions and abnormalities, and less garnished with inverted commas. The student of medicine, as of any other science, must learn to walk before he can run, and a scrap from Gintrac in the author's mother tongue cannot very much aid the bewildered neophyte in a preliminary examination of the urine. The more abstruse the subject the more should simplicity be studied in the teaching of that subject; and the usefulness of Dr. Sawyer's book would be increased if its volume were somewhat diminished. It is nevertheless full of very good and very instructive material.

On Vertigo, or Dizziness; its Causes, importance as a Symptom, and Treatment. By J. B. BRADBURY, M.D., M.R.C.P., Medical Lecturer in Downing College, &c. London: Macmillan and Co. 1870.—This publication formed the thesis for the degree of Doctor of Medicine. We have read it with pleasure and instruction, for the subject is well reasoned out, and in its clinical bearings practically discussed. From a consideration of the facts, physiological and pathological, that the author adduces, he is of opinion that they tend to prove that the proximate cause of vertigo is in the majority of cases a disordered cerebral circulation. The causes, treatment, and prognosis of vertigo form an interesting subject of study, and we recommend to our readers the perusal of Dr. Bradbury's pamphlet.

A Study of Convulsions. By J. HUGHLINGS JACKSON, M.D., F.R.C.P., Physician to the London Hospital, the Hospital for Epilepsy and Paralysis, and the Seamen's Hospital. Reprinted from the Transactions of the St. Andrews Medical Graduates' Association. 1870. — This pamphlet contains very careful and painstaking particulars, the author starting with the hypothesis that "a convulsion is but a symptom, and implies only that there is an occasional, an excessive, and a disorderly discharge of nerve-tissue on muscles." He confines his remarks to those convulsions in which the fit begins by deliberate spasm on one side of the body, and in which parts of the body are affected one after another. Epileptic hemiplegia, tongue-biting, arrest of fits by the ligature, temporary defects of speech, and the cause of convulsions commencing unilaterally, are all severally discussed. Dr. Hughlings Jackson has once and again contributed some valuable additional information relative to the study of nerve diseases.

Flowers from Fatherland. Transplanted into English soil by JOHN PITCAIRN TROTTER, A. MERCER ADAM, M.D., and GEORGE COLTMAN, M.A., Braz. Coll., Oxford. Blackwood & Sons, Edinburgh and London. 1870.—The idea of this work, we are told, originated with the first-named of the authors on the title-page, Mr. Trotter, who suggested to his friend Dr. Mercer Adam, the conjoint publication of a volume containing the translations which they had both written of celebrated German poems. The sudden death of Mr. Trotter put a temporary stop to the arrangements; but Dr. Adam, with the assistance of the Rev. George Coltman, has now published the present volume, and edited the literary remains of his lamented companion. These translations seem to us admirably executed, and the principle of strict fidelity to the German originals has been aimed at and effected. We warmly commend the volume to our readers. A good test of a successful translation is its capability of being read aloud well. The rugged force and spirit of the originals have been well sustained; and only those who have tried such translations are aware of the difficulty of succeeding in this. We are always glad to welcome the efforts of scientific men in literary pursuits; and we may therefore congratulate Dr. Adam on the manner in which he has discharged his share of these labours.

REPORT
OF
The Lancet Sanitary Commission
ON
RELAPSING FEVER IN LIVERPOOL,
AND ON THE
GENERAL SANITARY CONDITION OF THE TOWN.

No. I.

THERE are few medical subjects of inquiry more interesting than that of the origin and progress of great epidemics. In the investigation of relapsing fever there are, however, peculiar difficulties. The disease has only recently been eliminated from the common category of fever. Its symptoms are not by any means so characteristic as in diseases of an eruptive type, and there is no rapid or high mortality to attract attention. Moreover, no cases had been observed in Liverpool for many years, and numbers of the medical men now practising amongst the poor had yet to become acquainted with the symptoms of the malady. They had also to acquire their knowledge under most repulsive circumstances. The salaries of Poor-law medical officers are not such as to secure the services of men of age and experience; and the younger members of the profession who now occupy these posts carry on their onerous labours under circumstances which do not conduce to very careful examination or accurate diagnosis. The dwellings of the poor in Liverpool are both dark and devoid of furniture. The filthy patients often lie half-naked on the floors. So that if the medical officers were ever so well inclined, it would be impossible to make observations with instruments of precision, or to institute such investigations as are required for a speedy recognition of a new disease. The presumption, therefore, is that sporadic cases of relapsing fever escaped the attention of all but the most acute observers; and this for many months before the outbreak assumed an epidemic form. The credit of making out the presence of relapsing fever must certainly be ascribed to Dr. de Zouche, one of the district surgeons, though we shall find that its presence was also suspected by the medical officers of the Toxteth Workhouse at least three months before cases were admitted as such to the parish workhouse. Dr. de Zouche states that his attention was first drawn to a few cases of fever of an unusual character so long ago as in September, 1869. He was struck with the general freedom from delirium, and the presence of constipation—symptoms which excluded what may be termed the endemic forms of Liverpool fever—viz., typhus, and less frequently typhoid. Two cases were selected for special daily observation, and the result was a

recognition of relapsing fever. On November 17th, Dr. de Zouche sent a case to the parish hospital with a certificate of "relapsing fever," and he reported another the same week. Other cases were also sent; but as the diagnoses were not satisfactory, they were returned as typhus. In December he returned "relapsing fever" as the cause of death of a patient who had succumbed to the fourth or fifth relapse. In January he preserved notes of another fatal case. At this time the accuracy of Dr. de Zouche's diagnosis was seriously impugned, and he was required to furnish the addresses of the cases he was attending. But his opinion is singularly confirmed by the report of six cases admitted into the Toxteth-park Fever Hospital on the 6th of March, and returned as "relapsing fever," in the handwriting of the house-surgeon. From the commencement of March Dr. de Zouche continued to make regular weekly returns of new cases; and as he was the only officer who did so, he was regarded as an alarmist: indeed, the actual presence of this highly contagious disease was very tardily admitted by the officials, and it is stated was even somewhat pooh-poohed by Dr. Trench himself. However this may be, it cannot be denied that sufficient importance was not attached to Dr. de Zouche's statements, and that no special measures were taken to investigate their truth until the latter end of May. This indifference is the more to be regretted because it might have been possible to stamp out the contagion when it first appeared—a thing which is altogether hopeless now. It is, however, right to add that all the officials appear to have amply atoned for their indifference by the extraordinary energy they have since displayed. Some of the district medical officers now acknowledge that they at first failed to make the proper diagnosis; and that the fever they saw in the early part of the year was of the genuine relapsing type. On the 17th of May, Dr. de Zouche wrote a special letter to the vestry, calling attention to the rapid extension of the disease in his district. This letter was forwarded to Dr. Trench, who brought the matter before the Health Committee on the 26th, when orders were given to disinfect the houses from which the patients were removed. Dr. Gee, the medical officer of the workhouse, was also requested to report specially on a dozen cases, and he appears to have arrived at the conclusion that eleven were typhus, and that the other was doubtful. This result is somewhat extraordinary, for since the 22nd of June, when the first entry of "relapsing fever" occurs in the workhouse book, very few cases of typhus have been admitted; and at the present there are not fifty cases amongst the 1386 who are under treatment. Nevertheless, there was no evidence in March of any serious epidemic. There were only 24 cases of fever in the parish workhouse, and only 1 in Toxteth-park; but the number of admissions grew in April from 24 to 59, and in the month of May it is stated that the cases of febricula assumed an unusually serious character, whilst the numbers in hospital had increased to 117 at the end of the month.

It would thus appear that sporadic cases of relapsing fever were certainly observed more than a year ago; that they occurred amongst the poor, and probably both in the northern and southern portions of the town, though it was in the first that the fever assumed in June and July an epidemic form. There is, however, no evidence as to the importation of a contagious element. In London the disease was thought to have been introduced by German immigrants. There is a tide of such persons going through Liverpool on their way to America. They are usually brought through Hull by contract, and many of them are detained in Liverpool by sickness. By an arrangement with the parish, such persons are continually sent to the Workhouse Infirmary. But we have seen that relapsing fever was not observed amongst them, but originated in a totally distinct part of the town. In London also it was subsequently found that the disease was very much confined to the vagrant population. The majority of cases were removed from the tramp-wards and common lodging-houses; but in Liverpool this was certainly not the case. The majority have come from ordinary houses, a few from tramp-wards, and less than 50 have occurred in the inspected lodging-houses.

From the 1st of June we shall obtain a tolerable estimate of the progress and extent of this very serious epidemic from the following statistics of the parish workhouse:—

		Admitted.	Discharged.	Died.
During 4 weeks ending	June 25th...	232	198	11
„ 5 weeks „	July 30th...	465	258	19
„ 4 weeks „	Aug. 27th...	803	438	27
„ 4 weeks „	Sept. 24th...	1262	768	21
„ 4 weeks „	Oct. 29th...	1909	1564	6
Total		4671	3226	84

In the above return no distinction is made between the various forms of fever, but whilst the admissions from relapsing have steadily increased, those from typhus and continued fever have as steadily declined.

The numbers remaining under treatment were as follows:—June 25th, 133; July 30th, 268; August 27th, 676; September 24th, 1116; October 29th, 1386.

Besides the cases sent to hospital the following numbers were attended by the district medical officers; those not returned as cured or dead were sent to the hospital as rapidly as accommodation could be provided for them.

		New cases.	Cured, or relieved.	Died.
During 4 weeks ending	May 28th ...	83	26	6
„ 4 weeks „	June 25th...	121	28	2
„ 5 weeks „	July 30th ...	291	62	1
„ 4 weeks „	Aug. 27th...	682	153	5
„ 4 weeks „	Sept. 24th...	1094	265	11
„ 5 weeks „	Oct. 29th ...	1807	575	1
Total		4078	1109	26

There have thus been 5806 cases of fever in the parish of Liverpool up to the 29th October, with 110 deaths.

The Guardians of Liverpool have made the most extraordinary efforts to meet the emergency, and happily they have energetic and most worthy officers equal to the occasion. There is ordinary accommodation at the workhouse for 160 patients, and this has been extended to 550 beds by fitting up the able-bodied rooms as sick wards. When these were filled, the guardians proceeded to furnish some sheds which had been erected when the cholera last prevailed, and later on they cleared out the infant school, at Kirkdale, to which they have lately added three sheds, each containing seventy beds. It would be ungenerous to criticise too closely arrangements made so hastily and under such enormous pressure. But we would, nevertheless, venture to suggest that the classification of the patients is susceptible of improvement, and that the rules of hygiene should be more rigidly observed. The general aspect of some of the wards was slovenly; sufficient care was not always manifest as to the condition of the latrines and ventilation, and there is a decided tendency to overcrowding, which is calculated to retard recovery and to promote the spread of the disease amongst the nurses and attendants. The nurses also appeared to us insufficient in number, and are sadly overworked. Nearly all have taken the disease, and one was suffering from extreme debility after a fourth relapse. It is a significant circumstance that amongst the thirty-three women who are attending the out-door poor under the direction of Miss Merryweather, and who carry on their work in the very centre of the infected districts under every disadvantage, only one has as yet been seized; and still more so that the one who has the fever did not conform to the rules, but permitted herself to be greatly overworked. In all the parish hospitals there is the same defect, and as it is neither justifiable nor economical, directions should be issued limiting the daily attendance of the nurses in the wards to a reasonable length of time.

Notwithstanding the admission of relapsing fever to the Toxteth Workhouse in March, it is acknowledged by the medical officers that there was not a very distinct recognition of the disease until it had become fully established in other districts. There were only 11 cases of fever in the hospital on the 11th of May, and the wards, which were admirably adapted for 120 patients, were not full until the

14th of September. From this date it became necessary to treat the patients in their own homes, but there is no distinct record of the number attended weekly by the out-door medical staff. On Sept. 22nd the guardians authorised the appointment of two paid nurses to assist the district medical officers, and steps were taken to erect sheds for 150 patients. The staff of home nurses was subsequently increased to thirteen, and extra relief was administered in kind to the extent of £40 per week, besides money and stimulants. One of the new wards was occupied on the 20th of October, and the whole are now full. During the week ending October 29th, 150 new cases were attended by the district officers, their number being increased to meet the difficulty; and the guardians are contemplating the erection of another ward. There are probably nearly 600 cases now under treatment in this Union. The guardians have not displayed the same promptitude as their neighbours in Liverpool; but there is at the present time every disposition to support their medical staff; and we have the authority of a very excellent judge to state her conviction that, with more efficient personal treatment, the disease might in many cases be successfully dealt with in the people's homes. Where, therefore, the hospital accommodation is limited, it would seem desirable that a selection of the worst cases should be made. This, however, is a subject which must be dealt with hereafter; and in the meantime, considering the condition of the houses in Liverpool, it is an imperative duty on the part of the authorities to provide ample hospital accommodation. There have been 11 deaths in Toxteth-park Workhouse, of which the majority were admitted in a hopeless state.

In West Derby the fever has neither extended so rapidly nor so widely as in other districts. The guardians are at the present time converting their old workhouse into an infirmary, and for a time they sent some of the fever cases to the parish and to Toxteth-park hospitals. But it soon became necessary to make special provision of their own. A private house in the suburbs was opened on the 16th of August, which is now full, and contains 101 patients. There were 50 admissions in August, 140 in September, and 196 in October. Amongst these patients there have been a few cases of scarlatina, and one of small-pox. There have been 18 deaths from complicated relapsing fever, and 60 convalescent patients have been sent to the receiving ward of the old workhouse. It is stated that no cases have been refused admission. There are 118 patients at present under treatment.

It is scarcely necessary to enter into any detail as to the symptoms of relapsing fever. But one or two points of interest may be noted. It is observed that most of the patients are able to fix the very hour of their seizure. The rigor and muscular prostration are very marked, and occur most generally in the afternoon, whilst the patient is at work. The prostration would be considered alarming if the future progress of the disease were less fully known. When other complaints are present, the diagnosis becomes more difficult, and the disease may be readily mistaken for ephemeral fever, or for severe catarrh. Considering all things, it is not surprising that there are numerous mistakes in diagnosis. These amount to an average of nearly 10 per cent. The period of the relapse varies from the 12th to the 18th day, and the cases of a second and third relapse are not numerous. A few persons have been seized a second time, after an interval of several weeks.

It is remarked that pregnant women invariably miscarry, and that the fœtus during the latter months is always dead. Several deaths have resulted from this complication.

The wasting and prostration continue long after the subsidence of the active symptoms. Besides the patients in hospital, there are hundreds who are still under the care of the district medical officers, and who will require extra food, &c., for many weeks before they will be fit to work. The cost to the town will be immense. The present expenditure on account of fever cannot be reckoned at much less than £1200 a week, and it will be years before the effect will cease.

It remains only to inquire amongst what class of persons the fever prevails. It has hitherto been held that relapsing fever is an evidence of famine. This has not been the case in Liverpool. It is believed by all who have the best opportunity of judging that Liverpool was, at the beginning of this year, in a better sanitary state than it has been for several years past. There has been no great epidemic since 1866, and the death-rate had steadily declined. There was endemic typhus, and scarlatina, but they had not spread; and from the evidence there was full employment of every able-bodied and industrious man. This opinion is further borne out by the following facts:—On the 7th of May, 1870, there were 2701 inmates in the workhouse, as compared with 3154 in 1869; and of these not one was an able-bodied male, able to do a full day's work. The number of families on out-relief was 5096 in 1870, 5328 in 1869. The expenditure on out-relief was less by £50 per week. The district medical officers had somewhat fewer patients, and there was an entire absence of small-pox and cholera. On the 30th of April, 1870, there were 83 cases of typhus fever in the parish hospital, as against 129 the year before. The same state was observed in Toxteth Park, the inhabitants of which were never more free from zymotic diseases. But it is further certain that the disease is not by any means peculiar to the pauper class. The relieving officers state that very few medical orders have been issued to paupers who were at the time in receipt of relief. This is also borne out by a special inquiry made at the workhouse, when it was found that of 552 patients only 91 had ever been in the workhouse before. Nor does the appearance of the patients indicate that they have suffered from want of food. They are often pale and flabby-looking, but they are certainly not thin. The characteristic feature is the universality of cropped heads, and the attendants state that personal filthiness characterises nine out of ten. This however is no new feature in the condition of the inhabitants of Liverpool. The amount of filth in Liverpool is a constant quantity, and probably is not greater than in Whitechapel or St. George's-in-the-East. We shall therefore be compelled to look further into the causes which combine, perhaps to originate, and certainly to spread the disease.

Foreign Gleanings.

CALCIFICATION OF BRAIN-CELLS BY COMMOTION.

In one of the last numbers of his *Archiv*, Prof. Virchow publishes the following note, which we translate verbatim:—

"When, some time ago (1856), I first discovered the occurrence of calcified ganglion-cells in the brain, I was inclined to place it under the head of the 'lime-metastases' I had already described. Since then, however, from the consideration of a large number of cases, I am convinced that another explanation must be given. The process obviously belongs to that series of phenomena that I have recently (1867) described as one of the peculiarities of dead parts still remaining in the interior of the human body. I find foci, especially in the cortex of the brain, in which the cells, with their processes, and sometimes also fine nerve-fibres, are calcified, and this extremely frequently after injuries of the bones of the skull. Sometimes at these spots of the brain atrophic depressions occur, the so-called yellow plates, as in the observations I have elsewhere recorded, whilst at others nothing is visible to the naked eye. In the former case, after a peculiar disintegration of the brain in the form of red softening has occurred, the calcified elements are found in the interior of the softened portion, but generally towards the periphery. In the thicker brown cicatrices they lie in the adjoining substance of the brain, the cicatrix containing dead brain-cells only. The latter is the most interesting case, as nothing is visible to the naked eye. On several occasions where traces of external injuries, as fissures, were perceptible on the skull, I have investigated the subjacent uninjured portions of the gyri, and have found the ganglion-cells of the cortex calcified. These were therefore genuine cases of necrosis by commotion. So far as I can see, no one has followed out these remarkable processes beside myself. Förster, who first described them, made his observations upon the spinal cord; mine were made exclusively upon the brain."

ANEURISM OF THE AORTA: CURE BY GALVANISM.

Dr. De Cristoforis has published a case of this kind, in which he met with the same success obtained by Dr. Ciniselli, of Cremona, the latter cure being recorded in the

Ippocratico of Feb. 15th, 1869. Dr. De Cristoforis's patient is a man of forty-five years, whose aneurism did not form the usual tumour, but the case was perfectly clear. Three needles were introduced into the sac, and the current was allowed to pass alternately through each for forty-five minutes altogether. Most favourable symptoms set in, the pulsations ceased, and the man recovered. Dr. De Cristoforis, says the *Ippocratico*, has another case of the same kind in hand, in which he intends to use the same means of cure.

OBSTINATE HICCUP.

Dr. Juaritz states, in the *Siglo Medico*, that a medical man, just convalescent of gastric fever, was seized with hiccup, which persisted in a very fatiguing manner. Many antispasmodics were tried with no effect, when relief was obtained by an infusion of mustard, which the patient drank in mistake, thinking it an infusion of linseed.

RAPID CURE OF BUBOES.

Dr. J. Grünfeld, assistant to Sigmund, of Vienna, has had much success in extracting the pus by means of a hypodermic needle, india-rubber tube, and syringe. Where the cavity fills again, a second operation of the same kind should be undertaken; and when the pus is unhealthy, weak solutions, either of carbolic acid or chlorate of potash, should be injected, and pumped out again by the same syringe. Such patients as were so treated left the hospital much sooner than those whose buboes had been freely laid open.

ADVANTAGES OF THE LARYNGOSCOPE.

The *Marseille Méd.* of July, 1870, mentions two cases, treated by M. Duranty, where the diagnosis rested completely on the use of the laryngoscope. One had reference to a man, aged forty-one, affected with abscess lying in the inter-arytenoid space; and the other to a woman, aged fifty-six, suffering from a gummy tumour on the left vocal cord. The first was cured by puncture, the second with iodide of potassium.

NARROW PELVIS; EARLY ARTIFICIAL DELIVERY.

Modes of performing this operation have, of late, been much improved, the douche being now-a-days, the favourite method. Dr. Otto Spiegelberg, of Breslau (*Archiv für Gynæk.*, 1870), has undertaken to show, by statistics, that the results of the operation are less favourable than the consequences of waiting for natural delivery, even when the diameter is reduced to below eight centimetres—i.e., a little less than three inches. The figures quoted and the arguments are very convincing, and they deserve the careful attention of accoucheurs.

ANIMAL VACCINATION.

IT is pretty conclusively shown by Mr. Simon, in his recently issued report, that it is neither desirable nor necessary to introduce animal vaccination into this country, for the purpose of maintaining intact, or still further improving, our national vaccination. Mr. Simon relies mainly upon the facts obtained by Dr. Seaton in a special inquiry which he was desired to make in a visit to France, Belgium, and Holland during the autumn of 1869, and the results of which are printed in the appendix to Mr. Simon's report. Referring our readers for details to Dr. Seaton's report itself, we may here state the general conclusions to which they point.

Mr. Simon affirms that the system of animal vaccination has certain "great disadvantages," and these are its various peculiar liabilities to failure — First, that apparently even able and painstaking operators may find it impossible to transmit successive vaccination from calf to calf without very frequent recurrence of failures and interruptions. Secondly, it is found that, in the transference of infection from calf to the human subject, even under the most favourable circumstances—i. e., by experienced operators, and with lymph direct from calf to arm,—as, for instance, at Rotterdam, the proportion of non-success was nearly twenty times as great as in the ordinary arm-to-arm vaccination; a matter, as Dr. Seaton observes, of special importance in reference to outbreaks of small-pox, where, for the prevention of the spread of the disease, it is of all things necessary that the lymph used should be such as to ensure immediate success. Thirdly, that the calf-lymph, as compared with ordinary lymph, is peculiarly apt to spoil with keeping, and, in the form of tube-preserved lymph, can so little be relied on, that the Rotterdam establishment in distributing supplies of lymph now use only that from the human subject.

Such being the disadvantages, Mr. Simon proceeds to inquire whether there are any reasons to think that our own system has demerits which entitle us to regard it with special distrust, and to prefer even animal vaccination with its elements of weakness. Of course the ground upon which it is sought to discourage arm-to-arm vaccination is the asserted risk of spreading syphilis thereby; and if it were true that syphilis were so spread, some change of system would be called for. But Mr. Simon, after a careful examination of the whole matter, and holding that the above hypothetical concession does not go beyond the case of vaccination properly performed—for the vague possibilities of malapraxis are almost irrelevant to the main issue,—can see no ground for the alleged invaccination of syphilis. Premising that it is surprising that vaccination has not been almost generally pitched upon by persons as an apology for their syphilitic offspring, that wounds of slight nature in infected subjects may take on the character of a specific sore, and that when syphilis appears to be invaccinated it may arise from gross carelessness, that millions of vaccinations are yearly performed without any accusation of inoculated syphilis, and that the accumulated experience of the Medical Department of the Privy Council, as well as the general consent of the medical profession, are against the proved occurrence of invaccinated syphilis, Mr. Simon examines the exceptional cases, which are infinitely few in number, with a view of showing that they are to be explained by vaccination being altogether improperly performed, and declares that with such certainties as we possess as regards the freedom of vaccination, properly performed, from evil results, it would be the merest pedantry to insist on infinitesimal speculative uncertainties, as though our English system of vaccination deserved mistrust because we are puzzled to explain some alleged syphilisation on the Continent. That the various measures taken of late years to perfect our existing national vaccination have operated successfully it is needless to show. Mr. Simon entirely vindicates its claim to our increased confidence.

HOSPITALS AND THE WORKING CLASSES.

To the Editor of THE LANCET.

SIR,—Referring to your remarks on this subject in your issue of Nov. 5th, allow me to state that the working men of this town and neighbourhood contributed £352 9s. 7d. to the Chesterfield and North Derbyshire Hospital and Dispensary for the year ending March 31st, 1870. This substantial help from such a quarter has been gladly welcomed by the board of management.

The district around Chesterfield, from which the subscriptions of the various bodies of working men are received, has been separated into four divisions, and four representative working men, elected by the subscribing workpeople, have been added to the board. In this way a responsible share in the government and conduct of the institution has been entrusted to them. The scheme at first met with some opposition from one or two of the governors; but it has been in operation since June last, has worked well, and I believe the result, financially and otherwise, will be satisfactory to all concerned. I have much pleasure in adding that an extension of the hospital is contemplated, including a new operating theatre, consulting-room, and additional wards.

Following the noble examples of Glasgow and Birmingham, the working classes, as well as the employers of labour, will doubtless give us their sympathy and support.

I am, Sir, yours faithfully,

Chesterfield, Nov. 8th, 1870. JOHN ROSE, M.D., R.N.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 12, 1870.

THE deputation from the British Medical and Poor-law Medical Officers' Associations which lately waited upon the President of the Poor-law Board, in reference to the registration of disease, took advantage of the opportunity to urge that certain measures of Poor-law medical reform were intimately connected with the subject under consideration. We believe the deputation in its conjoint form was somewhat hurriedly brought together, and that consequently the plan of action was less thoroughly matured, and its bearings less perfectly comprehended by the spokesmen selected for the occasion, than would have been the case had there been more time for preliminary deliberation. A Minister skilled in such encounters is never slow to perceive and take advantage of the slightest want of unanimity amongst a deputation, and too much care cannot therefore be taken to guard against mishaps of that kind. We do not say that the discrepancies which Mr. GOSCHEN noted on the occasion in question were of material consequence to the issues raised, but there can be no doubt that they would have been better avoided. As it was, they served to enable him to play off one section of the deputation against the other, and thus to create an appearance of discord which we venture to think has no real existence. We hope to make this clear, in fact, by stating as concisely as possible what we conceive to be the case which the deputation had to offer for Mr. GOSCHEN'S consideration.

That a registration of disease or of sickness, as distinguished from the existing registration of deaths, is a necessity of our time, everybody admits whose opinion is worth notice. Setting aside the infectious diseases (whose earliest appearance in a locality is much more important to be known, so far as preventive medicine is concerned, than their fatal termination), take the group of rheumatic diseases, which are asserted by Dr. DICKSON, the Medical Inspector of her Majesty's Customs, to cause more suffering amongst all ranks of the community, and more protracted disability to labour (and consequent public loss), than any other class of maladies, except those of the respiratory organs; yet, as rheumatism and gout are seldom directly fatal, they attract, as Dr. DICKSON observes, comparatively little attention in our sanitary statistics. Concurrent opinion has absolutely settled the point that there ought to be a means of ascertaining from time to time the amount of disabling disease in the country—at any rate, amongst all classes of the people whose infirmities are treated at the charge of public institutions or of the nation at large. Such information, moreover, is as necessary for the guardians of the poor as for the officers of health, in order that they may adequately meet the various contingencies to which disease gives rise, and this with the promptitude essential to economy and success. And, so far as a large section of the community is concerned, the materials for this purpose already exist in the relief-books of the Poor-law medical officers, and of the responsible officers of most public charitable institutions. How these materials may be most advantageously utilised is the simple problem which awaits solution. The medical charities of the country unconnected with the Poor Law owe no allegiance to Mr. GOSCHEN, and therefore it is of no use to go to him about returns from them. But as regards the large mass of sickness treated under the Poor Law the co-operation of Mr. GOSCHEN is indispensable. Hence it becomes important to know whether that co-operation will be given, and upon what terms. To these questions answers have been supplied by himself: he has recognised the utility of disease returns, and affirmed the principle that any services which the Poor-law medical officers may have to render in respect of such returns must be recompensed. We come, then, to the practical consideration of how the returns may be obtained from the medical officers, and how these gentlemen are to be remunerated for the work thereby entailed upon them. It has been proposed that once a week every medical officer should be required to fill up a small blank form, stating merely the number of new cases of small-pox, measles, scarlatina, typhus, typhoid, simple continued fever, whooping-cough, diseases of respiratory organs, and perhaps five or six more selected diseases or types of disease, which have come under his notice during the week, and then to deposit that form in the nearest post-office for transmission to a central department in London. This would not imply more writing than the mere date of the return, the name of the locality, the signature of the medical officer, and the few figures to be inserted opposite the printed names of the diseases; while the information supplied would be amply sufficient to let the central department know the extent to which any of the diseases specified were prevalent at a given time through the whole or any part of the country. This system of weekly returns has long been established in the army at home, and it is found to work easily and well. We look upon this knowledge as necessary to the efficient working of any satisfactory scheme of sanitary organisation. But there is another use which the relief-books of the medical officers should perform besides that of supplying certain broad facts for imperial purposes—namely, to furnish the local sanitary authorities and district health-officers with the fullest particulars about the nature and extent of prevalent diseases for the purposes of local preventive medicine. The relief-books themselves should do this, and arrangements should be made either for giving all requisite access to these books on the part of the local authorities, or for handing-over the books themselves (or sections of them) at stated intervals. In this way the general requirements of the Central Health Department, and the detailed requirements of local sanitary authorities, would be both met with the least possible additional trouble to the medical officers—an undoubted desideratum. It may be supposed by many persons that, as the materials for returns of pauper sickness are in existence, all that is wanted is an order from the President of the Poor-law Board, calling upon the medical officers to begin them forthwith. Theoretically, this is so, no doubt; but, practically, there are serious difficulties in the way. Those who

know the medical service of the Poor Law most intimately, are strongly of opinion that any attempt to collect returns from the medical officers, under their present conditions of service, would result most unsatisfactorily. It is affirmed that so great is the stress of work upon numbers of the medical officers, and so inadequate their pay, that it would be hopeless to expect from them either accuracy or promptitude in respect of such returns. It is felt that many men would be placed in the invidious position of seeming to be incompetent for duties which they would perform ill for no other reason than that of sheer over-work. There is no denying the force of the argument that if a registration of disease is worth doing at all, it is worth doing well; and if there is reasonable ground for supposing that it would not be well done under existing circumstances, it follows that an endeavour should be made to bring those circumstances into harmony with the object it is desired to attain. The question of Poor-law medical reform, in its broadest sense, cannot be much longer delayed; and, seeing that its prosecution would facilitate so important a national work as the institution of disease returns, we trust that next session will witness its accomplishment. It may be taken for granted that the Royal Sanitary Commission will recommend the registration of disease; and Mr. GOSCHEN will then have to face, if he has not done it earlier, the question of the employment and payment of the medical officers. That any system of payment by the job—that is, per each return sent—of a satisfactory character can be devised, we disbelieve. There should be a thorough revision of salaries, so as to cover all the trouble of making these returns, and coincidently, of course, of the duties and position of every medical officer. The truth is that Poor-law medical reform ought properly to precede the registration of disease; and we cannot suppose for a moment that there was any real difference of opinion on this point among the deputation, although there seemed to be. The President of the Poor-law Medical Officers' Association is quite as hearty in the cause of disease registration as anybody; but he naturally objects to see the medical officers struggling in a race where many of them would be heavily handicapped by the exigencies of their position. It cannot possibly be to the interests of the public or of Mr. GOSCHEN that the Poor-law medical service should remain in its present unsatisfactory condition; and we trust, therefore, that he will employ the interval before the opening of next session in maturing a scheme for putting the service on a footing which, among other things, will fit it for rendering invaluable aid to the great national work of disease registration.

THE position of Midwifery as a branch of the medical art is peculiar, and seems to need either more definition or less. It is either recognised too little or too much. There is but one opinion as to its importance as a part of medical practice. We are not aware that one examining board omits to examine its candidates in this subject. The corporations which give a surgical qualification, and the corporations which give a medical qualification, and the universities that confer degrees, all include in their requirements certificates of attention to midwifery, and examine the candidate specially in the subject. Some of the bodies have the right, specifically stated in their charters, to issue separate licences in midwifery. This right is enjoyed by three bodies only, as far as we know—viz., the Colleges of Physicians and Surgeons in Ireland, and the College of Surgeons in England. The English College is alone in being fortunate enough to have its licence in midwifery specified in Schedule A of the Medical Act of 1858. There are cases of registration of the midwifery licence, by itself, apart from the other qualifications specified in Schedule A. The other colleges, having the right by charter to grant special licences in midwifery, felt themselves aggrieved a few years ago by the refusal of the General Medical Council to grant registration to their licences in midwifery on the ground that they were not specified in Schedule A of the Medical Act. This refusal of the General Medical Council was not only soundly based on the Act of Parliament, but on a consideration of the fact that midwifery is a part of the medical art, and that men with every kind of qualification have been examined in it and are presumably entitled to be considered in the eye of the law as accoucheurs. To the credit of the College of Surgeons of England, they do not now exercise their right of giving licences in midwifery, excepting to those who have their surgical diploma or some other tantamount qualification.

The only practical value of a special midwifery qualification that we know of is for Poor-law purposes in Ireland. Formerly the Commissioners for administering the Laws for the Relief of the Poor in Ireland used to require a licence in midwifery. This could only be obtained from the bodies we have named as having the special right of licensing in midwifery. Since 1862 the Commissioners have been content with a certificate of competency in midwifery, which can be granted by any of the licensing bodies. But this they continue to require as something distinct from a qualification in medicine or surgery, or both.

It may be asked, then, what is the peculiar position of midwifery? In the first place, the Poor-law Commissioners of Ireland treat the subject as one not included in medicine or surgery; in the second, the licensing bodies and the universities regard it as belonging to both, for no medical or surgical qualification is granted without an examination in midwifery; thirdly, midwifery may be practised, without breach of the law, by anybody. The most ignorant woman or a druggist may attend midwifery cases. The question is, if midwifery is a part of medicine or surgery, how is it that persons with no pretensions to legal qualifications practise it and take corresponding titles—"midwife" or "accoucheur"—with impunity? One answer to this question, and the only forcible one, is the fact that a large proportion of the midwifery of large towns and rural districts is attended by midwives, at rates of remuneration at which medical men could not afford to attend them. But a more perfect Poor Law would bring such practice within the duty of the Poor-law medical officer, and pay him properly for it; or, at least, demand more medical education in women who practise midwifery. At any rate, it seems to us that, in any fresh legislation on medical qualification, midwifery should be regarded as a part of medicine, and that the use

of titles falsely implying acquaintance with it should be made illegal, as is the false use of any other title implying a fitness to practise the medical art in any of its branches.

THE proceedings of medical students, during the last few years, have more than once been such as painfully to recall the memories of times that we hoped had passed away. The disturbances that led to the abandonment of the introductory lecture at St. Bartholomew's, the recent outrageous conduct of the pupils at Guy's, and the absolute riot last week at Edinburgh, may all serve as illustrations of our meaning. The young men who take part in such proceedings often do so from thoughtlessness, and often, without doubt, under the influence of some real or imaginary grievance. We have no wish to set up for being over-stern moralists, or to censure too heavily the follies which proceed from the mere effervescence of youth. We are even disposed to admit, as a general principle, that there may sometimes be a benefit to the public lurking beneath a breach of decorum, and that the noisy energy of students may now and then have hindered the accomplishment of some job to which men of middle age would have submitted in silence, even if with discontent. But, when we come to apply this principle to particular cases, it is rare indeed to find that they fulfil its requirements. A disturbance that can hardly be excused, much less justified, is almost as great an evil as causeless resistance to a magistrate. It lowers the tone of all who take part in it, and inclines them to be riotous and disorderly on all occasions. They feel when it is over that they have forfeited the respect of sober-minded people; and they are only too likely to act in continued and increasing defiance of sentiments which they have outraged, but which they know in their hearts to be right and reasonable. We should like medical students, especially, to remember that the honour of the profession is to a great extent in their hands, and that they have no business to trample it in the dirt. When they do so, they not only betray a trust, but they encourage and develop a state of mind which disqualifies them for the duties of the calling to which they desire to belong. A young man who voluntarily brings himself to the level of a Trafalgar-square politician will have many steps to retrace before he is fit to exercise the gift of healing, to receive the confidences of the sick, or to bear the numerous and onerous responsibilities that wait upon a medical career. The Guy's pupils, who pelted and insulted the invited guests, seem, by doing so, to have returned to practices which we hoped had altogether passed away. The Edinburgh men probably believe that they were in some way wronged or injured because the candidate whom they would have supported had not been the chosen professor; and they would say that the choice of a professor is a matter so important to his class that the latter are entitled to ratify or to disapprove of the selection. Even if we concede this, it is manifest that, south of the Tweed at least, it must be considered unmanly to condemn the new professor unheard. If he had been listened to with due attention, he would perhaps have justified the choice of those by whom he was appointed. If he had failed to do this, it would have been impossible to condemn a reasonable manifestation of disappointment on the part of the audience; but weapons suited to the hands of gentlemen might even then have easily been found by his opponents. The riot that we mentioned last week removes all possible sympathy from the students, and transfers it at once to the professor. It may fairly be presumed that the disturbance in the theatre, both at Guy's and at Edinburgh, was really the work of a few ringleaders. If this were so, we would beg of medical students to reflect before they again surrender themselves to such guidance. It is a terrible descent to abandon the thoughts and manners of gentlemen, and to degenerate for a time into vulgar rowdies. It is, if possible, still worse to wake afterwards to the consciousness that this sacrifice has been made in order to do the dirty work of some wire-puller behind the scenes.

IN the *New York Medical Journal* for October we have another contribution to the important subject of the Influence of Muscular Exertion on the Composition of the Urine, from the pen of Dr. AUSTIN FLINT, jun. The experiments of MM. FICK and WISLICENUS on themselves during their ascent of the Faulhorn, and the still more elaborate investigations of Professor PARKES on soldiers, will be in the recollection of most of our readers. The present case is more analogous in its nature to that of MM. FICK and WISLICENUS than to that of Professor PARKES, since it shows the effect of a sudden and violent, but not prolonged, exertion; whereas the experiments of Professor PARKES exhibited the influence of protracted exercise under different conditions as regards food. Dr. FLINT's experiment was as follows:—

In the month of May, 1870, Mr. E. P. WESTON, a celebrated pedestrian, walked one hundred miles in twenty-one hours and thirty-nine minutes. The weather was mild and clear. Dr. FLINT was present during the last three hours of the walk, and, learning that all the urine passed had, as a matter of convenience, been collected in one vessel, eagerly embraced the opportunity of ascertaining what effect such an enormous amount of muscular exercise would have upon disassimilation. Mr. WESTON, it appears, is thirty-one years of age, weighing about 120 lbs., and of rather slight make. From his connexion with the daily press, his habits as regards eating and sleeping are very irregular, but his general health is perfect. Previous to the walk he had no preliminary training beyond taking moderate exercise. At the end of the walk he did not seem at all fatigued, and was as well as ever on the following day. He commenced it at 12.15 A.M., and finished it at 9.54 P.M. No urine was passed up to 10.15 P.M., so that the urine collected was practically the urine of twenty-two hours. During the walk Mr. WESTON took the following articles of food, in small quantities and at short intervals: between one and two bottles of beef essence, two bottles of oatmeal gruel, and from sixteen to eighteen eggs, raw, in water. He drank a little lemonade, and took water very frequently, a mouthful at a time, only to rinse his mouth. During the last ten miles he took two or three sips of champagne, and about two fluid ounces and a half of brandy, in ten-drop doses. The head and face were sponged freely at short intervals, but he did not perspire much.

Dr. FLINT proceeded to make a careful analysis of the

urine passed, and compared it with the condition of the urine passed on a particular day some months afterwards. We must refer to the original paper for the full details of these separate analyses; but may insert the following table, which gives the main points, the exercise period (twenty-two hours) being calculated for twenty-four hours.

Total quantity	33·000 oz.	... 80·000 oz.
Urea	191·400 gr.	... 463·368 gr.
Chlorine	110·880 „	... 89·808 „
Sulphuric acid...	47·520 „	... 73·776 „
Phosphoric acid (total)...	31·680 „	... 120·600 „
Ditto with alkalies ...	21·120 „	... 102·600 „
Ditto with earths... ...	10·560 „	... 18·000 „
Uric acid	22·440 „	... 40·086 „

From this table it appears that, allowing for the highly nitrogenous diet consumed on the day of exercise, there was an enormous increase in the amount of nitrogenised excrementitious matters eliminated in the urine, and particularly of the urea; whilst there was a corresponding increase in the elimination of most of the inorganic salts. These results, which are in opposition to recent doctrines, and in accordance with the older views, clearly show that we have still much to learn in regard to the effect of exercise on the wear and tear of muscle.

THE confirmation of Mr. PAGET'S resolution by the Royal Medical and Chirurgical Society, to which we have referred elsewhere, extinguishes the last prospect of the establishment of such a medical society as we had hoped to see. We fear that this "lame and impotent conclusion" to so much expenditure of energy and labour must be mainly attributed to that absolute incapacity for concerted action which has so long, and in so many ways, been the bane of the medical profession. Our corporations go each their own way, utterly regardless of the general good; our societies, it seems, cannot do otherwise than follow the example thus set them; and the individuals in our ranks, the units of which corporations and societies are composed, too often allow personal antagonism to predominate over professional brotherhood. We are assailed on all sides by external enemies; but we are unable, even for a moment, to obtain union in our ranks. It may be that the opponents of amalgamation are right in their conclusions, although wrong in their reasoning; and that the elements of a dignified and coherent society, embracing all departments of the higher walks of the profession, do not exist among us.

A moment's consideration will show the baselessness of the arguments by which the scheme for amalgamation was opposed. It was said that the Medical and Chirurgical Society ought not to surrender its property; no regard being had to the fact that the surrender would be to its own members, and that the constituent elements of the Society would be unchanged. Mr. PAGET, as a Fellow of the Medical and Chirurgical Society, shrinks from surrending his rights to Mr. PAGET, the President of the Clinical Society, and so on with others. The whole tone of the debate has been to assume that Societies are entities, existing independently of the men who compose them; and having interests of their own to be considered. We understand that the vote of Tuesday night was regarded by many as a first step to the introduction of a scheme which is said to be in contemplation, and against which we must enter an early protest. We hear that an endeavour is to be made to unite the Societies, Obstetrical and all, into a sort of limited liability partnership. The Medical and Chirurgical, as the richest, is to buy or hire a building; and the others are to be its tenants, with a bond of union between all just sufficient to preserve some kind of appearance before the public, and to enable the minor Societies, with their respective orators *in esse* and presidents *in posse*, to shine with mild lustre reflected from the greater body. Such a scheme as this could fulfil no good or useful purpose; and it is to be hoped that it may fall still-born to the ground. It would, if carried out, transform Dr. BURROWS or his successor into the managing director of a sort of scientific OVEREND and GURNEY; and would surely be followed by a collapse which, if not as disastrous as theirs, would at least be as complete.

Medical Annotations.

"Ne quid nimis."

THE COLLEGE OF SURGEONS.

THE last meeting of the Council was occupied with a discussion originated by Mr. Gay, who brought forward the following motions:—

"1. That, in the opinion of this Council, the Royal College of Surgeons of England is entitled to a greater number of representatives in the General Council of Medical Education and Registration of the United Kingdom than that which is assigned to it by the Medical Act of 1858. 2. That, in any increase of the number, provision should be made that one, at least, of the representatives of the College should be elected by the Fellows and Members. 3. That a copy of the foregoing resolutions be forwarded to the Lord President of the Privy Council."

Considerable pressure had been put upon Mr. Gay, we believe, to induce him to withdraw his motions, on the score of their being premature at the present moment, and this was the line of argument adopted by most of the speakers on the occasion. Several members of Council were willing enough that the representatives of the College of Surgeons should be increased, but then they proposed that the election should, as now, be voted in the Council alone, instead of in the Corporation, of which the Council is but a small part. In the end Mr. Gay withdrew his motions, with a view of re-introducing them on another occasion.

Comparing the number of Fellows and Members of the College of Surgeons of England with those of any other medical corporation, it must be perfectly obvious that if representation of the members of the corporations was intended by the Act of 1858, it is as absurd for the College of Surgeons to have only one representative as it would be for the City of London to have but one member of Parliament. Unfortunately, however, the governing bodies of the several corporations have managed hitherto to maintain successfully that it is *they* who are to be represented; and, of course, one governing body is as good as another, and each has its representative. This was the view maintained, in opposition to Mr. Gay, by Mr. Humphry, of Cambridge, who is himself the representative of his own University in the General Medical Council.

We cannot say that we are surprised at the result of Mr. Gay's motions, for few members of such a conservative body as the Council of the College of Surgeons are prepared for any sweeping changes affecting their interests. It is

with the greater satisfaction, therefore, that we print to-day an able letter from Mr. Charles Hawkins, another member of this same Council. We commend the letter to the especial notice of the Fellows and Members of the College of Surgeons, and shall return to the subject of it on another occasion.

THE SIMPSON MEMORIAL.

THE Right Honourable the Earl of Dalhousie presided on Monday, the 7th inst., at a meeting in Edinburgh of the Provisional Committee for Promoting a National Memorial to the late Sir J. Y. Simpson. The Secretary stated that, in company with Dr. Alexander Wood, he had succeeded in forming an acting Committee in London,—the Duke of Sutherland consenting to preside at its meetings in Stafford House, where his Grace had kindly made provision for the sittings of the Committee. At the close of last summer, the Edinburgh and London Committees, after some negotiation, had agreed as to the form of the memorial, which, according to a joint circular issued to the friends and admirers of Sir J. Y. Simpson, will consist of—1st, a monument and statue in Edinburgh; 2nd, a marble bust in Westminster Abbey; 3rd, a hospital in Edinburgh for diseases of women, constructed on the principles unfolded by Sir James Simpson in his papers on "Hospitalism"; and, 4th, similar hospitals in London and Dublin, should sufficient funds be collected. The Committee resolved that, considering the extent to which the charitable public have subscribed towards the relief of the wounded in war, the appeal for subscriptions to the memorial should be delayed till the winter, and in the meantime the Committee itself and a few friends had made a beginning by subscribing £1950. The Earl of Dalhousie having moved that the Secretary's report be approved of, and steps be taken to further the subscription, the motion was agreed to; and after some remarks by Dr. Alexander Wood, Sir J. G. Baird, Dr. Andrew Wood, and others, the meeting separated.

SCARLATINA AND ITS SPREAD.

WHEN the medical history of 1870 comes to be written, it will be found to have been exceptional as regards the widespread prevalence of the contagious exanthemata. Go where you will, you hear of cases of scarlatina, measles, or small-pox; and the number of cases of the ordinary continued forms of fever has also been large. The prevalence of a certain disease at one season, or during one year, as compared with another, may be ascribed to what the older physicians called "an epidemic constitution of the season," or to any other unknown quantity that serves to recognise the presence of facts which people cannot account for. Be this as it may, we are powerless to alter the seasons, but we are not powerless to prevent the development of crops of disease if we only take care to destroy the seeds from which they originate. We only employ the term "seeds" metaphorically of course, for we simply desire to indicate the infectious properties of such diseases as scarlatina quite apart from any hypothesis about germs. The origin and nature of scarlet fever poison are unknown, but there can be no doubt as to its chief and its ordinary, if not its only source—particles of some, or of any kind, derived from a scarlet fever patient. We hailed the appearance of a recent article in *The Times*, on the subject of scarlet fever and its propagation, with pleasure, because it set forth, in a very lucid and readable way, some facts about which it concerns the public to be well informed. The contagion of contagious diseases generally, would appear to be less active at the outset of the malady than during the subsequent stages, and the period of convalescence. This is especially the case with scarlatina. Nature marks the most dangerous stage by the changes which ensue on the surface of the patient's body. The skin "peels"; infective material is thrown off; it is blown about by the air; carried away on clothing; transmitted to the laundry with soiled linen, or dropped into a milk-pail, as Professor Bell has well shown; but wherever it goes, disease goes with it. The first requisite in dealing with a matter of this kind is promptitude; and, to secure this, the existence of every case of infectious disease should be made known to some local sanitary or other authority possessed of a proper power and knowledge of how to act, so as to prevent or limit the risks of its spreading in the community.

We have had the opportunity, since writing the above, of perusing a lecture recently delivered by Professor John Gamgee, before the Penrith Farmers' Club, on "Protection from Contagion," in which the lecturer graphically explained the best methods for securing the protection of which he was speaking. Prof. Gamgee has some right to be heard on a topic of this kind, for he held tenaciously to the doctrine of contagion in the case of the Rinderpest, and he was right in the measures he urged, when to be right was to be very unpopular.

THE HOSPITAL AT SEDAN AND ITS MANAGEMENT.

IN many of the wars of the past a wounded man had a better chance if left exposed to the inclemencies of the weather by a hedgerow or in a ditch than when lodged in the poisonous atmosphere of a military hospital. A good hospital ward, says an old military authority, ought to contain so small a number of beds that anyone entering should at once feel that double or treble the number might easily be put into it. What with the exigencies of war, the ignorance of those in high places, and the subordinate position which the care and well-being of the wounded must occupy in the thoughts of a general, compared with considerations of strategy and military success, we need not wonder that, practically speaking, so little progress is made in military surgery and military hygiene. Dr. Marion Sims has just made his report of the Anglo-American Ambulance, in which he gives a description of the hospital at Sedan. According to the *Examiner*, from which our account is derived, the hospital was a bomb-proof barrack, standing on the highest ground within the fortifications and near their northern boundary, at an elevation of sixty or seventy feet above the level of the Meuse. The building is described as about 300 feet long by 66 feet wide, two stories high, and containing sixteen wards, nine on the lower floor and seven on the upper. The wards are 66 by 24 feet, and 10 feet high. They run transversely, have a large window at each end, and communicate with each other by large doors along the centre of the building; each ward, except the 3rd and 7th, containing twenty-four beds. These had but ten each, because the half on the north-east side was occupied by broad flights of stairs. There were broad stairs also at each extremity of the building.

It is perfectly clear that men seriously wounded could not be successfully treated in a building of this kind, with an allowance of a little over 600 cubic feet per bed; and we are not surprised that Dr. Marion Sims says that the moment they took possession of this hospital they had "the dread of hospitalism; for it contained at least twice as many beds as it should have had." Every effort was made to secure free ventilation by open windows; but these were placed, *not at opposite sides*, but *at opposite ends* of the wards. Ventilation by open windows is not in general use in French hospitals. About ten days after the battle of the 1st, all the ambulances and hospitals in Sedan and

its neighbourhood were visited and inspected by a committee of French surgeons. On entering one of the wards they called out, "*Fermez les fenêtres.*" It was explained to them that the only hope of preventing purulent infection was by free ventilation. To this they did not at all agree, but foretold grievous injury to the wounded from the draughts. As each party held such opposite views on the subject of ventilation, the inspection ended, and the high officials turned and retraced their steps.

On the 12th of September, Dr. Marion Sims requested the authorities to put up half a dozen tents, merely to have them ready for any emergency, such as erysipelas, gangrene, &c.

"They went on to the number of thirty-six in spite of our remonstrances, and then they gave us notice to evacuate every patient that we could from our hospital. We obeyed the notice, and sent out sixty-nine, and immediately received an intimation that we must take one hundred and fifty-six more patients."

The Prussians wanted the College ambulance in the town, and so they sent its 156 sick and wounded up to the hospital, putting some of them in the building, but most of them in the tents. Dr. Marion Sims and his staff protested, but the Prussian authorities were inexorable.

"After three days they agreed to remove the fever and the dysentery cases, if we would agree to take charge of the seriously wounded. To this we unfortunately assented, and thirty-six men, with awful wounds and diarrhœa, were removed from the tents, and distributed through our wards. Almost every one of these new comers have died; and, in spite of free ventilation and of disinfectants, our old patients contracted diarrhœa, and many of them have died of purulent infection. From the day that these typhoid cases were introduced, the health of our hospital began to fail, and it was necessary to hurry out many of our wounded, who under other circumstances ought to have remained longer."

Dr. Marion Sims pays a warm tribute of praise to the lady nurses, who worked very hard, and apparently most successfully, among the patients.

ADVICE GRATIS TO THE PROFESSION.

OUR attention has been directed to the practice of certain medical men of gratuitously and somewhat freely circulating pamphlets on professional subjects, setting forth the views of the author, and generally tending to show that he has some special knowledge of a disease, or some special and peculiarly successful mode of treating it. The merits of such productions vary very much. And so, no doubt, do the motives with which the authors act in scattering their works broadcast over the profession. Sometimes the motive is apparently unselfish; at other times it is difficult to believe that the author does not contemplate some personal advantage, as much as the dissemination of truth. This idea is often supported by the whole style of the author—the terrible description of the disease, the difficulties of diagnosis, the danger of making a mistake; the great extent of his peculiar opportunities for seeing the disease; the originality of his treatment, and his success in various cases, of which happy specimens are given,—all seem intended to produce a conviction that the author is a man to be consulted. True, perhaps, he indicates the nature of his remedies. But he withholds details, or leaves you with the notion that to give the treatment a fair trial you must let the author have it and the case very much to himself.

We will not specify cases, as our authors are apt to do; we will keep to general remarks. And without any invidiousness, we will point out to all gentlemen who resort to the plan of taking a Medical Directory and distributing their scientific productions freely through the profession by means of the post, that such a course is undignified. The medical profession is capable of judging the merits of any scientific work done by its members. There is no want of medical journals through which an author may put himself in communication with the profession. These journals are not only media of communication, but they are friendly critics of all medical doctrines and pretensions. If a communication is too poor to find insertion in these, there are the booksellers who are always ready to publish. But to distribute a work, or part of a work, gratuitously is to make the confession that the profession will not buy it, and to justify a presumption that it is not worth buying. Men are not apt to appraise very highly that which comes to them gratuitously through the book-post, and of all things that come gratuitously through the book-post nothing is more lightly esteemed than medical literature. The profession is displaying a growing disapproval of all obtrusive ways of publishing cures and remedies. We need not say more to discourage a practice which savours of advertising rather than of faith in truth or love of science.

DIFFERENCE IN THE MILK OF THE TWO BREASTS OF THE SAME WOMAN.

IN one of the last (July) meetings of the Académie des Sciences, M. Sourdat reported an interesting case of dissimilarity, not only in quantity, which is common, but in the chemical composition of the milk of the two mammæ of a woman. The investigation was undertaken in consequence of the woman stating that her three children had respectively declined to take one breast, and had consequently been exclusively reared by the other. On careful examination, it was found that the whole milk produced, taking both breasts together, varied from day to day without perceptible alteration in the health of the mother. Slight over-exertion, small changes in diet, the period during which the fluid had been stored up in the breast—all produced certain alterations. Thus eight analyses of the mixed milk gave solids varying from 10·10 to 13·70 per cent., the proportion of solids to fluids varying as 1 : 1·35. The specific gravity was also very variable, as from 0·980 to 1·031. On examining the milk of the two breasts separately, but drawn at the same period, it was found that the milk of the right breast, which was also by far the most abundant, contained a much larger proportion of solid constituents than that produced by the left, the proportion being as 1·20 : 1 for the minimum, and 1·74 : 1 for the maximum. The quantity of butter produced by the right breast was in proportion to that of the left as 1·50 : 1 for the minimum, and as 9 : 1 for the maximum—a difference that, as might be supposed, made a considerable variation even in the appearance of the milk. The nitrogenous compounds, casein and albumen, were also far more abundant in the milk of the right breast, the maximum difference being as 1·90 : 1. It was a remarkable circumstance, however, that the soluble substances, sugar and salt, were in precisely equal quantities in the milk of both breasts. Five analyses were made.

HOSPITAL FOR SICK CHILDREN.

THE subject of the advantage of hospitals for sick children is under lively discussion in Glasgow, where nearly half the deaths occur to children under five years of age—that is to say, that 7429 children die under five, and 8212 persons die over that age. It is argued, on the one hand, that the foul air of Glasgow acts badly on infants; that there is no proper accommodation for sick children in the Royal Infirmary, and consequently no material with which to teach and illustrate the diseases of children to students; and, lastly, that the sufferings of sick children would be

greatly alleviated by such a hospital. On the other side, it is argued that 700 children are treated annually in the Royal Infirmary with a much smaller mortality than in children's hospitals, the little patients being very happy during their sojourn; that hospitals for specialties are not generally approved or desirable; and that during the prevalence of epidemics hospitals for the diseases of children have had to be closed altogether.

Perhaps it is enough to state the *pros* and *cons* of this question to enable our readers to judge of it for themselves. In most towns we should certainly not commend such institutions to the support of the public. Sick children are indeed most fit objects of study to medical students, and they are to be greatly pitied and helped by the benevolent. But all this does not involve the necessity of special hospitals for children, to which there are many very grave objections. Nobody will seriously maintain that the infantile mortality of Glasgow would be materially reduced by such an institution. The most of this is caused by epidemic diseases that would be excluded by rigid rules, or by diathetic diseases that would not be benefited by residence in a hospital. The great disgrace of infantile mortality is to be removed by sanitary, social, and educational measures. The proper nurse of a sick child is its own mother. No doubt, in a huge place like Glasgow, there are many sad infantile cases of disease which necessitate hospital treatment, and for these the Royal Infirmary supplies a creditable amount of accommodation. Here and in the various out-patient departments of practice there must be material enough for the study of children's diseases, which only needs to be concentrated for clinical purposes. On the whole, while regarding the death of 7000 children annually in Glasgow as a great blot upon its character as a city, and expressive of all bad conditions, and most earnestly urging special consideration for sick children, we do not commend the scheme of a children's hospital. It is lamentable to think how little such institutions do for sick children. In London if a child with spinal curvature, and in need of a special apparatus, is sent to a special hospital, unless recommended by a very special subscriber, it is generally received as an out-patient, and supplied with the stereotyped cod-liver oil and steel wine. The parents are told to get the mechanical apparatus, which is of course beyond their means. The cost of beds in children's hospitals is from £40 to £63. A considerable sum has already been raised towards this purpose in Glasgow. The munificence of this city cannot be more worthily exercised than in devising help for sick children; but to erect a special hospital will be to waste money on bricks and mortar and other incidental objects.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

AT the meeting of this Society on Tuesday evening, a paper, by Dr. Hilton Fagge and Mr. Durham, "On the Treatment of Hydatid Cysts of the Liver by Electrolysis," formed the business of the ordinary meeting. The high character of the paper would, under ordinary circumstances, have made it the prelude to a long and interesting discussion; but on this occasion notice had been given that the meeting would be made special, in order to confirm or reject the resolution moved by Mr. Paget at the last general meeting. The speakers who rose were, therefore, careful to occupy as little time as possible; and many who might have been expected to rise remained silent. At the close of the brief debate the meeting was made special. The confirmation of Mr. Paget's resolution was moved by Dr. Robert Lee, and seconded by Dr. Murchison. The chief stand against it was made by Dr. Greenhow and Dr. Barclay, and a few other Fellows also addressed the meeting. It was generally felt, however, that speeches were uncalled for, and that the question was ripe for a division. When this was taken Mr. Paget's motion was confirmed by a majority of five, 41 voting for, and 36 against it. About a hundred Fellows were or had been present, so that twenty-three abstained from voting upon the question.

RELAPSING FEVER.

THE public good which may be anticipated to arise from a registration of disease is well illustrated by a fact recorded in an official report recently made by Mr. J. Netten Radcliffe on the sanitary state of Tredegar, in Monmouthshire. From this report we obtain the important information, previously not publicly known, and not apparently even brought to the cognisance of the Privy Council before Mr. Radcliffe's report, that relapsing fever broke out as an epidemic in Tredegar in October, 1868, and prevailed widely in that town throughout the winter of 1868–69, and spring of the last-named year. The last epidemic of relapsing fever in England, prior to 1868, had ceased in 1855. In July, 1868, several cases of the disease had been observed in the metropolis; but it was not until May of the year following that the malady exhibited signs of active diffusion, and that alarm was excited; and not until the subsequent autumn (October, 1869) that Mr. Simon's monitory memorandum for the information of the Poor-law authorities was published. In the meanwhile, according to Mr. Radcliffe, who has based his statements upon information given him by two highly competent observers, Mr. G. A. Brown and Mr. Barry, the surgeon and assistant-surgeon of the Tredegar Iron Company's works, this had happened at Tredegar. In October, 1868, relapsing fever appeared in that town. The disease spread with considerable rapidity, often extending to entire households; and at the outset of the epidemic the smallness of the mortality arising from it was a matter of popular remark. In January, 1869, typhus also broke out among the population, and the two epidemics prevailed side by side, relapsing fever dying out in the autumn of the year, but typhus continuing to prevail unabated as relapsing fever declined; and when the latter had ceased, it remained still as a formidable epidemic, persisting until the summer of the present year. From November, 1868, to October, 1869, 47 deaths from relapsing fever, and 26 deaths from typhus, were recorded in the practice of the medical staff of the Iron Company; and during that period the number of cases of both forms of fever which received treatment is estimated at 1200. In October relapsing fever ceased altogether. From November, 1869, to May, 1870, 24 deaths from typhus were recorded in the same practice. Mr. Radcliffe states that no facts are forthcoming to show the mode of introduction or of early development of relapsing fever at Tredegar. No particular destitution is stated to have prevailed in the town towards the close of 1868, and during the first six months of 1869; but overcrowding exists to a large extent among the population. We may add that, to our own knowledge, a large population of poor Irish exists in Tredegar. That so grave an outbreak of a disease of the appearance of which it was especially important that the central government and local authorities ought to have early cognisance, should have occurred without any, apparently the least, information of it reaching the world outside the infected population until months after the outbreak had come to an end, is a fact which conclusively shows the inefficiency of our present sources of information concerning the early appearance of epidemic disease among the community.

QUEEN'S HOSPITAL, BIRMINGHAM.

AT the Queen's Hospital, Birmingham, at a meeting held on Monday, Mr. John Clay was elected obstetric surgeon. The election calls for notice on one or two grounds. The mode of election was peculiar—viz., by a hundred governors elected by ballot instead of by the whole body of governors, nine hundred in number. The contest lay between Mr. Clay and Mr. Arthur Oakes, both of them well-known and much-respected members of the profession in Birmingham, Mr. Clay being perhaps known more widely out of Birmingham than Mr. Oakes. Either of these gentlemen would have made a good surgeon to fill the vacancy, though it must be admitted that Mr. Clay's scientific work seemed to give him some special qualifications for the post. Mr. Furneaux Jordan, in proposing Mr. Oakes, in what, no doubt, he considered the interest of the profession, imported an irrelevant argument into the case. "There was one thing which Mr. Oakes had not done—he had never outraged any single feeling held by the medical profession." The inference of course was that Mr. Clay had outraged professional feeling, and, therefore, the profession supported Mr. Oakes. Surely it was not a qualification for an obstetric appointment that a medical man took a certain course on the sick-club question, to which, we presume, allusion was made, nor a disqualification that another member of the profession took another course. Immediately cries of trades unionism and rattenism were raised. Mr. Jordan had damaged both his candidate and his profession, while meaning to serve them both. The argument was alike inappropriate and undignified. Let us keep questions distinct, and never lay ourselves open to the charge of thinking first of our class-feeling, and secondly of the public interest. Mr. Clay was elected by a large majority, and will, doubtless, feel somewhat indebted for it to Mr. Jordan.

STYPTIC WOOL.

DR. EHRLE, of Isny, in the interest of his countrymen wounded in the present war, desires to make known a very simple preparation of wool that he has found very serviceable in arresting hæmorrhage after operations or from wounds. To prepare it he boils the finest carded wool for half an hour or an hour in a solution containing four per cent. of soda, then thoroughly washes it out in cold spring water, wrings and dries it. The wool is thus effectually purified, and is now capable of imbibing fluids uniformly. It is then to be dipped two or three times in fluid chloride of iron diluted with one-third of water, expressed and dried in a draught of air, but not in the sun or with the aid of high heat; finally it is carded out. Thus prepared, it is of a beautiful yellowish-brown colour, and feels like ordinary dry cotton wool. As it is highly hygroscopic, it must be kept dry, and when required to be transported must be packed in caoutchouc or bladder. Charpie may be prepared in a similar manner, but, on account of its coarser texture, is not so effective as cotton wool, presenting a less surface for producing coagulation. When the wool is placed on a bleeding wound, it induces moderate contraction of the tissue, coagulation of the blood that has escaped, and subsequently coagulation of the blood that is contained within the injured vessels, and thus arrests the hæmorrhage. The coagulating power of the chloride of iron is clearly exalted by the extension of its surface that is in this way effected. The application of the prepared wool is not particularly painful, whilst, by sucking up the superfluous discharge and preventing its decomposition, it seems to operate favourably on the progress of the wound. The unpleasant secondary results that have led many practical surgeons to discard the use of the perchloride of iron do not occur with the wool when it is properly made and applied. In cases of wounds where the bleeding proceeds from large and deep seated vessels, it may be used as a compress, a bandage being applied over it, or the wound may be plugged with it. It may also be employed with advantage in cases of profuse suppuration, to imbibe the discharge and purify the surface. He recommends that a small portion should be given to every soldier on going into action.

A POOR-LAW MEDICAL OFFICERS' ASSOCIATION FOR IRELAND.

IT is proposed to form a Poor-law Medical Officers' Association in Ireland, on a somewhat novel plan.

1st.—The officers of each union will elect from amongst their number a *union representative*, who shall be the medium by which the Association will communicate with boards of guardians.

2nd.—The union representatives of each county will elect from amongst their number a county representative, who will place himself in communication with the Parliamentary representative of the county.

3rd.—The thirty county representatives will form the council of the Association.

4th.—Quarterly meetings of the Association are to be held in the provinces, and the annual one in Dublin.

5th.—The subscription is to be 2*s.* 6*d.*, which, if all the Poor-law medical officers join, will produce enough to pay for printing and postage.

Names are to be sent in to Dr. T. T. Maunsell, 1, Harrington-terrace, Dublin.

We heartily wish the scheme success. Although the Irish medical officers are not by any means so badly off as many of their English brethren, they have some very serious grievances. The organisation proposed will, if carried out, secure a direct communication with the guardians, and, what is even of more importance, with the Parliamentary representatives. We fear that the subscription will be found too low, and we would venture to suggest that the sympathies of other members of the profession should be invited by the institution of honorary membership.

No better man than Dr. Maunsell could be found in Ireland to inaugurate such a society, and if anyone can succeed he will.

PURE SCIENCE AND THE PRACTICE OF MEDICINE.

PROFESSOR WILLIAMSON, of University College, devoted his inaugural lecture to the purpose of showing the uses of science, and its influence on the business of life. The professor had no difficulty in demonstrating how useful a knowledge of the general principles of science is even to men in almost any department of business. He is most anxious that the State, in promoting a national system of education, should recognise pure science to be essential as an element of national progress and greatness. We only hope that Mr. Forster will not overlook the claims of pure science while his main thoughts at present are concerned about the extension of a knowledge of the three R's. It is apparent to the most superficial observer that all our arts are crying out, as it were, for more science; that the workmen are waiting upon the discoverers, and that no time is lost in embodying an idea that a higher taste or a higher science announces. If we do not mind we shall be outstripped in trade for the want of science. We commend the lecture of Professor Williamson to the study of medical students. Our art is so complicated, and the demand for it is so urgent, that it has to be practised empirically to a greater extent than most other arts. But this necessity has its limits, and even the art of medicine is coming more

and more under the rule of the laws of science. The time is at hand when the unscientific practitioner will be respected neither by his brethren nor by the public. We do not mean to distract our busy readers by suggesting that they must become physiological experimenters, and discoverers of new ideas in science; but we urge them to be quick in the reception of the scientific truth delivered to them by experimenters and discoverers. Dr. Williamson admirably says, "I believe there is no case of the division of labour so important for the due success of the respective operations as the division between the labour of theory and the labour of practice." It is so. The labour of most medical men is the "labour of practice." But they should keep their minds in constant communication with those of their brethren, and with labourers in other departments of science, who are employed in making true theories, which, after all, are the basis of all sound practice.

MR. POLLOCK'S CASE OF SKIN-TRANSPLANTATION.

THOSE who have been awaiting with interest the result of Mr. Pollock's experiment of transferring portions of skin from a negro to a granulating surface in a white subject will read with regret, in one of our hospital reports of this week, that both the pieces of pigmented skin have been lost in consequence of some unexpected and unaccountable sloughing which attacked the cicatrix of the wound. By this unfortunate accident Mr. Pollock is compelled to postpone until another opportunity presents a histological investigation which promised results of great physiological interest. The experiment had, however, already demonstrated the power of black skin to reproduce itself in a white subject by the development of pigment in the new skin which it propagated. Mr. Pollock thinks it just possible that the sloughing may have spared a few living pigmented epithelial cells; if so, they may be expected shortly to give evidence of their presence.

THE BROWN BEQUEST.

THE period at which the Brown Trust Fund, if not utilised in accordance with the will of the testator by the University of London, in the establishment of an Animal Sanatory Institution, for the study of comparative pathology and the treatment of the maladies and injuries of "quadrupeds and birds useful to man," will be forfeited to the University of Dublin for the foundation of certain professorships in Trinity College, is drawing near. There is only, indeed, one year left to the University of London for giving effect to Mr. Brown's wishes, so far as it is concerned. Many have been the difficulties experienced in founding an institution—such as that contemplated by the testator—in England, according to the true intent of the will, and yet without contravening the Mortmain laws, which, it is held, forbid the University from expending any portion of the fund—which, by the way, now amounts to about £33,000—in the purchase of land, or in the erection of buildings; at least the Senate of the University have not ventured to run any risk on this point. It was for this reason that the offer recently made by the authorities of Guy's Hospital to erect suitable buildings for the Animal Sanatory Institution, on land belonging to that hospital in Southwark, on condition of receiving a certain permanent rent, was fruitless in bringing matters into a more satisfactory position. Since the rejection, in the House of Lords, of the Bill promoted by the Charity Commissioners, by which certain rewards would have been given, under the scheme of the Bill, to those who had distinguished themselves in a competitive examination, after pursuing a certain plan of study, in veterinary science—a scheme which would have greatly promoted the study of comparative pathology,—the Senate have been compelled to seek means to give effect to the testator's wishes in the exact manner indicated in the will. We believe that the opinion of counsel is that the University of London can found the institution without risk, if a site and buildings are given them absolutely for the purpose; and there is every probability that now, at the eleventh hour, the trust will be administered in such a way as to give effect to Mr. Brown's wishes, and fully satisfy all the legal requirements of the case.

ROYAL COLLEGE OF PHYSICIANS.

AT the Comitia held on the 7th inst., it was reported to the College that an offer had been made to Staff-Surgeon Dr. Marston that he should go out to Trinidad as the representative of the College in the forthcoming inquiry into certain methods of treatment for leprosy, but that Dr. Marston had found himself unable to accept the duty; whereupon it was agreed that Dr. Gavin Milroy should be requested to undertake to represent the College in the inquiry.

A very important motion was announced by Dr. Webster, which it is to be hoped the general body of Fellows will strongly support when it comes forward for formal discussion—viz., the proposal that in future an annual account of the income and expenditure of the College shall be published along with the list of Officers, Fellows, and Members. There is reason to believe that the apathy notoriously displayed by the majority of the Fellows and Members as to everything that goes on in the College is due, in no small part, to the total ignorance in which they are kept respecting the resources and expenditure of this venerable but rather sleepy institution. It will be a wholesome and a constitutional measure of reform to establish a regular publication of the accounts, which is certainly an absolutely necessary preliminary to any measure, such as many would doubtless see inaugurated, for making the College more directly active and useful in advancing the standard of medical education and medical science.

1869 IN THE BENGAL PRESIDENCY OF INDIA.

WE have just received a copy of the sixth Annual Report of the Sanitary Commissioner with the Government of India for 1869. It is a very elaborate and, so far as we can form an opinion from a cursory examination, highly creditable production, containing a mine of information, which we purpose exploring more at our leisure hereafter. The number of blue-books and reports, sanitary and otherwise, issued in India is truly enormous. It might well have been said that the country is governed by the pen. The year 1869 must have been an exceptionally bad one for India. A reader running his eye over the table of contents might be disposed to exclaim, Is this to be the effect of sanitary science in India, and of the elaborate and expensive machinery at work there! So far from any improvement, everything appears to be pretty nearly as bad as it can be. Take the European troops:—The death-rate during 1869 has equalled 42·89 per 1000. Independent of the loss from cholera, the death-rate has been higher than in any year since 1859; the proportion of cases of sickness exceeded that of any year since 1863; the average number daily in hospital was larger than in any year since 1865; small-pox was more prevalent and fatal than in any year since 1861; fevers have been more prevalent than in any year since 1863; apoplexy was more fatal than in any year since 1859; dysentery and diarrhœa were more prevalent and fatal than in any year since 1863

delirium tremens was considerably more prevalent than in 1868; hepatitis was more fatal than in any year since 1858; venereal diseases were as prevalent in 1869 as in 1868; the loss from invaliding was heavier than in any previous year. As regards the native troops, the mortality of the regular native army was higher than in any year since 1860. And, lastly, turning to the gaols, we find that the average number of prisoners has been greater than in any previous year; sickness and mortality have increased during 1869; and in the Punjab the sickness and mortality were greater than of late years.

SCARLATINA IN LIVERPOOL.

SIDE-BY-SIDE with relapsing fever in Liverpool rages scarlatina. It has prevailed in an epidemic form since the middle of last year, though, as might be expected, sporadic cases have continually occurred. There were more than 1000 deaths from it last year; and during the last quarter ending Oct. 1st, the mortality from this one complaint was comparatively higher than the average of the seventeen large towns which make weekly returns to the Registrar-General. At the present time it is particularly prevalent in West Derby and Toxteth-park. In the latter district there have for many weeks past been about fifty cases under the care of the district medical officers. Only a few cases have been admitted to the pauper hospitals, and these, probably, under circumstances precluding the possibility of home treatment. The disease broke out in the Children's Hospital a few weeks ago, and it has been found necessary to stop further admissions for the present. In the out-patient room of this establishment there is a large daily attendance of children, and we cannot but think that the infection has been propagated in this way. Would it not be desirable to restrict the attendance of out-patients to those suffering from non-infectious disorders requiring continuous treatment, and prohibit the admission of new cases? It seems to us a grave question whether out-patients in the case of children should not be separated entirely from the hospitals. Although scarlatina has been prevalent throughout the country, it has been worse in Liverpool than elsewhere, in the proportion during the last quarter of 304 to 237. There is some danger of this sad state of things being regarded as unavoidable; but as it affords the strongest possible evidence of an insanitary condition of the town, it should only serve to stimulate the authorities to discover the true causes in order to meet them in a more successful way.

HAMPSTEAD HEATH.

THE Hampstead vestry, at a recent meeting, in prospect of the purchase of the Heath for the public by the Metropolitan Board of Works, is reported to have expressed the opinion that the Heath should be allowed to remain in its "normal condition," and not be turned into anything like a park. Now the "normal" condition of the Heath is one of disgusting filthiness over a great part of its surface. This state of filthiness has long been a disgrace to the local authority of Hampstead, for which the questions of proprietorship offered no valid excuse. One at least of the most beautiful spots on the Heath has been deliberately used for years as a place for the deposit of rubbish and filth by the inhabitants of Hampstead; the place where donkeys stand for hire is at all times inexpressibly foul; parts of the Heath have been converted into stinking sewage sloughs, from the sewage of some of the finest villas overlooking it being permitted to flow over it; and many of the roadside ditches are receptacles of sewage. The absence, indeed, of all conservatorship, and the toleration of abominable nuisances, have been and are as discreditable as disgraceful to the locality. If this is the "normal" state which the vestry hopes will be maintained, we trust that the Metropolitan Board will give no heed to its wishes, but take needful and prompt measures, when it has secured the property, to place it and maintain it in a decent condition.

A CURIOUS QUESTION.

A CURIOUS question is suggested by a painful case that recently happened at Lincoln. A child eight years of age was struck on the head by a stone. He became delirious, but no medical assistance was obtained for three days, and when it was obtained the parents absolutely refused to be guided by it. The surgeon to the Dispensary and two surgeons to the County Hospital were unanimous in the opinion that the child's life might be saved by trephining, but this the parents would not permit. An inquest was held, and a verdict of "homicide by misadventure" was recorded against the boy who threw the stone. The jury attached to their verdict a perfectly inoperative but very just censure of the parents. Now the legal obligation to provide medical attendance is unquestionable, and neglect to fulfil it has frequently (as in the case of the "Peculiar People") been visited by punishment. It is a curious question what is the nature of the obligation—whether it is satisfied by sending for a doctor to *see* the patient, and by wholly neglecting his advice. If so, the "Peculiar People" might easily escape the legal consequences of their peculiarities. If not, is a parent or next friend bound to submit the patient wholly to medical advice, or may he draw a line?—stop at operations, for example.

THE WESTMINSTER OPHTHALMIC HOSPITAL.

THE meeting of the governors of this hospital was held last week; and its issue was much as we had ventured to anticipate. A letter from Mr. Hancock was read, in which he expressed a wish that his resignation might be accepted, saying that his new duties as an Examiner at the College of Surgeons would prevent him from giving attention to the work of the hospital. It was stated that Mr. Hogg was ineligible to be elected surgeon, and that he had, therefore, been advised to retain his present appointment. Mr. Rouse will, it may be presumed, be the only candidate for the surgeoncy, the election to which will take place at the next meeting.

UNIVERSITY OF DUBLIN.

THE Vice-Chancellor of this University, Sir J. Napier, Bart., last week pronounced judgment on a *dubium* raised by some of the junior and senior Fellows, who objected to the present system of appointing the principal officers of the College, and wished to inquire whether the bursar should be elected annually or not. As regards the latter, Lord Cairns, the Archbishop of Dublin, and Sir J. Napier, Bart., the visitors, declared that the bursar must be elected every year, it being an annual office. They also ruled in favour of the memorialists that seniority and rotation must not be made the main criteria of selection; such, although it has been the custom of the authorities, being contrary to the statutes of the College.

ABERDEEN INFIRMARY.

THE President and Managers of this Infirmary recently met to consider a report on the addition to the Lunatic Asylum. Two proposals were before the meeting: one, to extend the east wing of the building for the reception of patients from the country parishes; another, to make such internal improvements in the building as would not merely afford the required accommodation, but would render any

further alterations in future years unnecessary. The expense of the latter proposal would be £2748. The managers were permitted by the meeting to delay the matter until a report upon it had been drawn up and submitted.

THE CONTAGIOUS DISEASES ACT AND THE POLICE.

We learn from various quarters, and in different ways, that the agitation against the Contagious Diseases Acts has had the effect of alarming some sensible people with regard to the actual and prospective action of the police. Our support to the principle of the Acts has all along been given to them as a measure of sanitation, not as a measure of police; and it occurs to us as being possible that they might be better carried into execution by a health authority than by those who are now entrusted with their working. The appointment of a few intelligent men, of good character, called inspectors, or by some similar title, and deriving their powers from the Medical Department of the Privy Council, would remove many of the objections that are now made. We would suggest it as one subject for the Commission of Inquiry that they should consider how far such a change would be advantageous.

THE HOSPITAL FOR WOMEN.

We understand that the medical officers of the Hospital for Women in Soho-square are intending to give a course of evening lectures on subjects connected with the special objects of the hospital, during the months of January, February and March. These lectures will be open to practitioners and medical students, without fee. Dr. Protheroe Smith will lecture on "Flexions, Torsions, and Displacements of the Uterus"; Dr. Meadows on "Uterine Hyperæmia"; and Mr. Christopher Heath on "Diseases of the Breast." The first lecture will be given on Thursday, January 12th, at 8.30 P.M.

FEMALE MEDICAL STUDENTS AND THE EDINBURGH INFIRMARY.

The female medical students attending the Edinburgh University have addressed a memorial to the managers of the Royal Infirmary, requesting them to reconsider their resolution to exclude such students from the wards. Certain lecturers in the extra-academical school, and certain physicians and surgeons of the Infirmary, submitted letters to the managers expressing their willingness to teach female students in their classes, theoretical or clinical. The managers have postponed consideration of the subject.

SIR J. Y. SIMPSON ON HOSPITALISM.

We have much pleasure in announcing that the unpublished papers of the late Sir J. Y. Simpson on Hospitalism, a subject on which he was much engaged at the time of his death, will shortly appear in our columns. The manuscript will be arranged by Mr. Lawson Tait of Birmingham, to whose editorial care it has been entrusted.

THE VACCINATION ACT AT LEEDS.

The report of the Leeds Vaccination officer for the quarter ending September, shows that of 435 children born in the first three months of the year and vaccinated on 1st July, 318 were vaccinated, 61 died, 21 had the operation postponed by reason of sickness, and 35 had removed from the neighbourhood. Only one death from small-pox had occurred, and that to an unvaccinated child two months old. It was not found necessary to enforce the penal clauses of the Act in any case of the quarter's return. The death-rate among illegitimate children appears to be very high in Leeds.

The vacancy in the Senate of the University of London caused by the death of Dr. Miller, will have to be filled by selection from a list of three persons to be nominated by Convocation, inasmuch as the last three vacancies have been filled by the direct nomination of the Crown.

A Royal Commission has been issued to inquire into the system of Friendly Societies, with Sir Stafford Northcote as chairman. It can hardly be otherwise than that many questions affecting the medical profession in its relations with such societies will come under consideration during the inquiry.

The fatality of small-pox goes on increasing in London, there having been twenty-three deaths registered from that cause last week; of these, thirteen occurred in the east districts, no less than five being returned from the eastern sub-district of Mile-end Old Town.

Among the candidates for the resident medical officership of the Fever Hospital of Homerton and Stockwell is Dr. Barbour, whose experience of fever as resident officer of the London Fever Hospital has been very varied and extensive. He has an additional and great qualification for this post in having himself had every variety of fever, including relapsing fever, and therefore being fearless of further attacks. It would be simply unfortunate if such qualifications as Dr. Barbour's are not recognised by the Metropolitan Asylum Board.

The statement lately made in *The Times* as to the financial difficulties of the Middlesex Hospital has had the effect of bringing in a donation of £1000 from Sir E. R. Jodrell, coupled with an intimation that he will double his annual subscription. The Grocers Company have sent a donation of £200. Why does not Mr. Custance try to organise a "Hospital Sunday" in London?

The Devonshire clergy have borrowed a leaf from the books of the "Hospital Sunday" movement, in setting on foot for purely religious purposes a "National Church Sunday." Let the Liverpool clergy perpend; they are going to have a "Hospital Sunday," and, as they are in doubt lest the non-medical charities of the town may suffer thereby, why should they not set apart a special Sunday for their benefit?

The Metropolitan Board of Works, in view of probable legislation affecting the constitution of the Board, have decided upon electing a chairman for one year only, in succession to the late Sir J. Thwaites.

Mr. Hugh Taylor, of Coltishall, near Norwich, has received a gratuity from the Lords of her Majesty's Privy Council, on account of the satisfactory condition of his district in regard to vaccination.

Mr. V. Wearne, Staff Assistant-Surgeon, has resigned the Assistant-Professorship of Pathology at the Army Medical School, Netley, having held it for four years.

The Wigan guardians, with the sanction of the Poor-law Board, have granted Mr. Maxwell Reilly £10 for two successful cases of lithotomy.

Dr. Griffin, J.P., has been appointed Mayor of Banbury for the ensuing year.

THE Secretary of the Victoria Hospital for Sick Children writes to *The Times* that, since the commencement of the Franco-Prussian war, the hospital resources have been sensibly and steadily decreasing. We suspect that this experience is by no means singular. There is too much of our fashionable charity wanted "for exportation" just now not to make the supply "for home consumption" run short.

DR. STORRAR has been elected by the Senate as the representative of the University of London in the Medical Council.

Correspondence.

"Audi alteram partem."

MEDICAL LEGISLATION.

To the Editor of THE LANCET.

SIR,—Whilst as an individual without any right to offer an opinion upon so important a subject as "medical legislation," beyond what a deep interest in all that concerns the welfare of my profession confers, I venture to hope that you will grant me space in your journal to offer some suggestions on this most important subject, and, feeling how great the difficulties of such an undertaking are, I trust I may be pardoned for making the attempt. It is forty years since I commenced my professional studies; some were then loudly talking of medical reform; still we are talking on the same subject, though in much milder language than I heard in my student days. Attempts have been made from time to time to settle this question, but hitherto with but partial success; even the Act of 1858 has already been declared to be insufficient for the purpose. The last failure is too recent to require comment. I think I can see the reason of this want of success in the fact that legislation has been hitherto done in a hurry, and before ascertaining the feelings and opinions of the profession and the public on any proposed enactment. Anyone who could suggest a scheme that would be acceptable to the profession, or at least to a large majority of it, and to the public (for if the profession ask for legislation, legislators have a right to demand to have a voice in the matter; it being their duty to look after the interests of the public as well as of the profession), will have done a good service. What are the points on which there is a pretty concurrent agreement, and which those attempting legislation must be prepared to deal with? I think the following are the most important. 1. One general and uniform examination that all before entering on the practice of their profession must pass to enable them to be placed on the Register (clause 18 of the first Bill of 1870). 2. A board of examiners appointed on the ground of their being well fitted for the duties entrusted to them, and on that ground only, without any reference to their relations to any "medical authority" to which they may belong. 3. A central body of control, such as the present General Medical Council, with a final appeal to the Government in cases where "medical authorities" may object to the regulations of such a body.

With regard to the mode of forming this body, the profession have, in such large numbers, claimed to have a direct participation in the nomination of the members that it must be granted to them, whatever individual opinions there may be adverse to such an arrangement. The kind of representation on which the present Council is formed has, I believe, been the one cause of that body failing to obtain that amount of confidence of the profession necessary for its successful working. Those who have constituted the General Medical Council ever since its formation have surely been those who, had it been possible, would have achieved success—men in every respect especially fitted for the duties entrusted to them, and who, in all other work they have been employed in, have been eminently successful. This alone, I think, renders it necessary that the mode of election of this body should be altered. That the representatives of the "medical authorities" should be elected in equal numbers, whether they annually license some four or five hundred practitioners, or license scarcely any, and that the election of a representative of a constituency of upwards of fifteen thousand should be appointed by a body consisting of not more than twenty-four, are anomalies sufficient to satisfy most minds that an alteration in this direction must be one of the points to be settled in any new legislation.

Believing "corporate" representation to be a mistake, and that "direct" representation of the profession must be adopted, the following is the plan I would suggest. It is admitted on all hands that the Council is at present unnecessarily large; twelve or thirteen councillors I think would be sufficient for all purposes; and they should be appointed thus:—The Government should have the nomination of four members, two for England, one for Scotland, and one for Ireland. England should have four representatives, Ireland two, and Scotland two, which would be about in proportion to the licences to practise registered in the different parts of the United Kingdom. Every person on the Register for England should have four votes, on that for Scotland two, and for Ireland two. This would do away with the unfairness, to say the least of it, of the plural voting which the present "corporate" representation gives, for there are those who are Members of the College of Physicians, the College of Surgeons, the Apothecaries' Society, and a University, thus having four votes, whilst those who have been content with one qualification, such as the Fellows of the College of Surgeons of England have only one vote; and that only through their representatives in the Council of the College.

In opposing this plan, I already hear some say, by such public voting you would not obtain the best men; good men would not subject themselves to such a mode of election—in fact, that the whole profession are not to be trusted with such a franchise. This has been stated, and this I consider a libel on the whole profession. If there are still such who hold this opinion I would ask them to look at what is now taking place in all parts of the kingdom in relation to the new school boards. There are plenty of good men not only willing but anxious to be elected. Then the mode of collecting the votes: the necessary machinery may be copied from the plan adopted by the Universities in electing their representatives in the House of Commons—by means of signed papers. The Council should have the appointing of the examiners for the "one necessary examination," but with this proviso, that none of their own body should be appointed. I think if there is one thing on which the profession are almost unanimous, it is that examiners should not have the power to appoint themselves; they should be appointed for a limited time on the plan adopted by the University of London, and which has given such general satisfaction. As to the age of the examiner, I think the most fitting period of life is between forty and sixty, when a practitioner is in full practice, both public and private; for I think it essential that those who examine in medicine and surgery should hold hospital appointments. A question has been debated whether there should be one central board of examiners in London, or three—one in London, Dublin, and Edinburgh. I think one board in London would be preferable, to which Irish and Scotch examiners might be appointed, who, I imagine, would find no more difficulty in reaching London than they do now to attend the General Medical Council. As to the candidates for examination, it is a duty they will not have to perform necessarily more than twice in their lives; and it is only what is required from all candidates for examinations for the army, Indian, and all other Government appointments. Of course all the present "medical authorities" would retain the power to grant their licences, as at present, to all those who might wish to have a qualification beyond "the one necessary one." The formation of this examining board would no doubt seriously interfere with the finances of at least one of the present corporate bodies, the College of Surgeons of England, and it would be necessary that funds should be found for the due maintenance of the Hunterian Museum. The College has the custody of the Museum, not only for the profession, but for the public; indeed it may be said for the world—at least the scientific world—at large; and if from the fees charged candidates for examination, there were deducted five pounds for those registering in England, in

Scotland two pounds, and in Ireland two pounds, ample funds could be raised for keeping the Museum in all efficiency, according to the present rate of expenditure. I trust the Museum may never leave its present home, where it has been so well cared for, and has reflected so great a reputation on the body that has the charge of it.

In conclusion, I believe the day for "conjoint examining boards" has passed away. More than one attempt has been made to bring about such an arrangement, but they have always failed to bear any fruit; and to those who know all the conflicting interests to be considered, the cause of such failures is not far to seek. I feel I cannot any longer trespass on your space, or there is more that I should offer in explanation and support of my suggestions, and must leave to others more competent to fill up such omissions. I know that there will be those who may read this letter who will at once say it *cannot* be done; it touches too many vested interests. In thirty years of pretty active life I have heard like objections made to a great many schemes that I have lived to see perfected, and far beyond what the originators could have dreamed of. But I trust those who may read this letter will excuse my temerity in presuming to treat of such a subject; and believe, in doing so, I have had but one object in view—what I consider to be the interests of our profession.— I am, Sir, your obedient servant,

Savile-row, Nov. 1st, 1870. CHARLES HAWKINS.

ROTHELN, OR GERMAN MEASLES.

To the Editor of THE LANCET.

SIR,—It was with great pleasure I read your report of Dr. Murchison's clinical lecture on Rötheln. I have lately had nine cases completely answering to Dr. Murchison's description, especially as to the character of the rash, duration of fever, &c., and embarrassment of diagnosis. In two or three only were the air-passages affected, but in five or six there was severe ulceration of the tonsils; and in one case, nearly fatal from exhaustion, there was discharge from ear and nose, and afterwards abscess in neck and ischio-rectal fossa. All recovered with supporting regimen, chlorine mixture, &c. Some of the children had already had measles, and some scarlatina, but I do not know that any had had both.

Allow me, Sir, to mention, with reference to an article in your issue of Oct. 29th, on the treatment of incontinence of urine with tincture of belladonna, that I am using it in a case of many years' duration, and success has been complete since the dose has reached ten minims three times a day. I give it with the steel.

I am, Sir, your obedient servant,
G. A. KENYON, M.B. Lond.

Gipsy-hill, Upper Norwood, Oct. 31st, 1870.

To the Editor of THE LANCET.

SIR,—I think Dr. Murchison has meted out less than justice to the profession in his clinical lecture on German Measles, which appeared in your last impression. At the conclusion of a most interesting description of the disease occurs this passage:—"The result is, that few practitioners are acquainted with the disease, and many have never heard of it; and it is generally treated as a variety of measles or scarlet fever, although every now and then a medical man of more than usual discernment describes it in the journals as a new or anomalous exanthem."

I contend that he is in error in this statement, and that the paragraph should read thus:—"The result is, that most practitioners are acquainted with the disease, and few have never heard of it; and it is generally treated according to the prominence of one or other set of symptoms, although every now and then a medical man of less than average information describes it as a new or anomalous form of exanthem."

I have recognised the disease in my own practice for six years. I also had it pointed out to me by the medical man with whom I first acted as assistant, eight years ago. My partner here has been aware of this special malady for years; and only last week a gentleman in a neighbouring county sent me a description of the same under the name of "spurious measles."

I am satisfied that the knowledge of this disease is as general in the profession as Dr. Murchison states it to be limited, and that it is unsafe to assume a want of knowledge from an absence of print. We should not admire as a man of more than usual discernment one who ventured to state as novel that he had discovered some points of difference between enteric and typhus fever.

I am, Sir, your obedient servant,
Mere, Wilts, October 31st, 1870. W. NORRIS MARSHALL.

THE WORD "MICROZYMES."

To the Editor of THE LANCET.

SIR,—In a paper "On the Intimate Pathology of Contagion," which was published about three months ago, I proposed the word "microzyme" as a convenient general term for the first organic forms which present themselves in organic nitrogenous liquids, when about to undergo "spontaneous" decomposition.

In consequence of the interest which at present attaches to the question of the origin of disease from germs, my word has become somewhat popular, but has been used in a sense entirely different from that in which I myself proposed it. It has been used to denote the particles of which, as I have endeavoured to show, there is reason to believe that contagious matter essentially consists. I should not think it worth while to object to this misapplication, were it not calculated to lead to great confusion.

Microzymes (in the exclusive sense in which I have used the word) are often found in contagious liquids. It is undoubtedly a question for serious discussion whether or not these organic forms are identical with contagious particles; but at present there is no reason for believing either that they are or that they are not so.

I am, Sir, your obedient servant,
Queen Anne-street, Nov. 7th, 1870. J. BURDON-SANDERSON.

EXTIRPATION OF THE COCCYX.

To the Editor of THE LANCET.

SIR,—My apology for disputing Dr. Nott's claim to priority in the performance of this operation must be that the *New Orleans Medical Journal* is not easy of access, and that until to-day I was not aware of its existence. Under the circumstances narrated in his letter I am quite prepared to admit Dr. Nott's claim.

Coccydynia, like all other neuralgic affections, is not always cured by operation, as I have elsewhere shown; and I can quite understand that in the hands of Sir James Simpson, as in the experience of others, both the subcutaneous operation and that of excision may have proved of only temporary benefit.

I am, Sir, your obedient servant,
Waterloo-street, Birmingham, Nov. 5th, 1870. LAWSON TAIT.

EDINBURGH.*

(FROM OUR OWN CORRESPONDENT.)

WITH returning winter comes once more the opening of the University and Medical School. At both, the inaugural addresses were delivered on Wednesday. The Principal, Sir Alexander Grant, delivered that to the University, and in it he embraced a variety of subjects, commencing first by panegyrics on the late Sir James Simpson and Mr. Syme, which were remarkable for this, that it would be difficult even for the opponents of either to find fault with the observations on their lives and characters. He alluded to the retirement of Professor Allman, and to the liberality of Sir Roderick Murchison in offering a substantial endowment for a chair of Geology. He next referred to the chair of Moral Philosophy and the lectures on Political Economy, which he regretted were still to be given by the Professor of Moral Philosophy. He congratulated the University on the offer made by the Merchant Company of Edinburgh to

* This letter arrived too late for insertion in our last issue.

found, out of the endowment funds at their disposal, a chair of Political Economy, and considered such a foundation in many ways singularly appropriate. The other subjects touched upon were the education question, bursaries, donations to the library, academical accommodation, an increase being much wanted, and he mentioned the site of the infirmary as most suitable if funds could be raised for its purchase. He concluded with some observations on our students, and their having no distinctive insignia of their status; and remarked that the watchwords of the students should be truth and honour, and that "the only hope for the continued greatness of any nation consists in this, that its students and its young men of student age grow up cherishing within themselves deep ideas and noble aspirations."

A very clever and interesting address was delivered by Dr. Joseph Bell at the opening of the extra-academical school. There was a good attendance of medical men, and a large number of students, the hall being quite filled. The address will no doubt be published; when *in extenso* it will be better appreciated than in a garbled form. The ladies, although now hard at work in the dissecting-rooms, did not present themselves at the opening address.

Yesterday Professor Simpson delivered the introductory lecture to his course on Midwifery. The lecture-room was crowded to overflow, and the behaviour of a certain number of the students present was highly discreditable to them as gentlemen. They have, or at least a section of them, already shown their opinion of the appointment of Dr. Simpson to the Midwifery chair; and it might have been expected that our national characteristic, the love of fair play, would have been sufficiently strong in them to have allowed the lecturer to proceed in peace, and without those unseemly interruptions which occurred yesterday. Neither the address of Sir Alexander Grant, nor that of the veteran Christison, was heeded; but from time to time tramping, cock-crowing, quacking, and hooting interrupted the delivery of a most interesting address on the progress of midwifery during the last thirty years. I cannot say, however, that I was able to hear much of the lecture continuously, for the reasons above stated. Whatever the students may think of the intellectual qualifications of Dr. Simpson for the chair, they must own that he yesterday showed pluck and perseverance in finishing his lecture—such as could not fail to impress them that he is a man of courage and determination.

Edinburgh, Nov. 3rd, 1870.

INSIDE PARIS.

OUR correspondent forwards us, by balloon post, the following communication, by which it will be seen that, among other things, the military surgeons are practising conservative surgery on an extensive scale, and apparently with more successful results than have been attained in the field.

"The siege of Paris presents very many points of professional interest. The almost daily skirmishes, attacks, and larger actions supply the hospitals with wounded presenting injuries of all degrees of gravity, and illustrating in the measures taken in their management from all that is ingenious, scientific, and admirable, down to that which is inconceivably bad, horrible, and disgusting. Conservative surgery is having, in some instances at least, a fair trial, and is doing wonders; in fact, limbs shattered by bullets are being saved in cases where, some years ago, anything but instant amputation would not have been thought of. A considerable amount of dysentery, rheumatism, fevers, and chest affections have arisen from exposure of the troops in bivouac and in the *tentes d'abri*. There is very little disease, however, when we consider the great fatigue our troops have had to undergo, and the wet inclement weather we have had during the greater part of October.

"Meat is now decidedly scarce; butter and milk luxuries for the very wealthy; and eggs difficult to be had, and dear. The daily ration of beef or mutton now allowed to each adult inhabitant is reduced to 35 grammes—that is, about an ounce and a half, including bone; and, in consequence of imperfect arrangements, there are many who have been unable to obtain that little scrap. The sick and wounded troops, except in the purely military hospitals, are insufficiently supplied with meat, except perhaps in the American ambulance, and one or two others, where private energy supplies what official routine fails to furnish. This state of affairs is injurious to the wounded themselves, and calculated to give rise to ill-feeling among their effective comrades. It is therefore to be hoped that it will soon be rectified.

"Great abuses had crept into the system of taking the wounded off the field; it has been asserted that some persons, who had established private hospitals in their houses for selfish purposes, actually paid money to *infirmières* for carrying wounded to their carriages near the field of battle. This has now, it is hoped, been put a stop to."

Obituary.

THOMAS ANDERSON, M.D.

THE great Botanic Garden at Calcutta has just lost its able, accomplished, and energetic director. Dr. Thomas Anderson died on the 26th ult., at Edinburgh, where he had for some time been resident for the recovery of his health. He was but thirty-eight years of age at his decease, having begun his literary, scientific, and professional education at the University of Edinburgh unusually early in life, and graduating as Doctor of Medicine in 1853, as soon, in fact, as the regulations permitted. At college the bent of his mind towards botany was strongly shown. He gained the Gold Medal in Professor Balfour's class for the best herbarium collected within ten miles of Edinburgh, and his thesis on the physiological and therapeutical properties of atropa belladonna, and the characters of the solanaceæ generally attracted much attention. While still at the University he assisted Dr. Cleghorn in arranging the Indian herbarium for the museum there; and immediately after graduation he entered the Indian Medical Service, first at Calcutta, and then at Lucknow. He was attached to Hodson's Horse during the rebellion, and was present at several engagements. During the mutiny his wife and family were shut up in Lucknow, in the charge of Dr. Fayrer. Even in this perilous position he did not forget his studies; but drew up an account of the flora of the neighbourhood. His health, however, giving way, he went back to Calcutta, whence he returned to England for two years. At the expiration of that term he took charge of the Calcutta Botanic Garden for Dr. Thomas Thomson, and was appointed director when that gentleman retired. With this promotion his activity redoubled. He laboured unweariedly at the development of the botanical, and particularly the medicinal, resources of India, introducing, among other plants, chinchona and ipecacuanha. By Lord Canning he was sent to Java to procure specimens of the true yellow bark tree (the Chinchona calisaya); and under the same auspices he superintended the chinchona plantations at Darjeeling, whence supplies of the bark are sent, not only to all parts of India, but to England and the colonies. The impulse he had given to the cultivation of chinchona he endeavoured to impart, some little time before his death, to that of ipecacuanha, a plant of only less importance in dysentery than chinchona in remittent fever. At the Edinburgh Botanic Gardens he was preparing for shipment to India a collection of ipecacuan plants which had been specially reared for that purpose at the instance of the Duke of Argyll, and one of his last visits to the garden was made to examine their progress. But death intervened before he saw the consummation of his design, and arrested for ever a number of investigations which would have gone far to complete the Flora Indica, already enriched by the contributions of Roxburgh, Wallich, Wight, Arnott, Hooker, and Thomson. The Linnean Society, of which Dr. Anderson was a Fellow, received many of his best papers, especially that on Acanthaceous Plants, which it published as a monograph. Few men could have been less easily spared to the scientific part of the profession in India than Dr. Anderson. It will be one beneficial result, however, of the overwork which killed him, that an impulse has been given to the development of Indian botany which

will carry its author's name to distant generations, by whom the memory of his most useful, amiable, and exemplary life will be fondly cherished.

JAMES STILWELL, F.R.C.S.

MR. JAMES STILWELL, of Moorcroft House, Hillingdon, died on October 29th, at the ripe age of seventy-three. A student of St. Bartholomew's Hospital, he became a Member of the College of Surgeons and a Licentiate of the Apothecaries' Society in 1818, and practised for forty-five years at Uxbridge, where he enjoyed the respect and affection of a large circle of friends. Mr. Stilwell was one of the earliest practitioners to take the Fellowship of the College of Surgeons by examination, his diploma dating April 17th, 1845, that being only the second occasion of an examination being held. He retired from practice some few years back to Hillingdon, where he assisted his son, Dr. Henry Stilwell, in the superintendence of the Moorcroft House private asylum. Whilst actively engaged in the duties of practice, Mr. Stilwell enjoyed the confidence and esteem of all classes of his patients; and, being naturally of a cheerful, generous, and self-denying disposition, and ever ready to do a kind act for a friend, his loss will be long felt.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the primary examination in Anatomy and Physiology at a meeting of the Court of Examiners on the 8th inst.:—

J. H. Webster and R. Jolly, Edinburgh; R. W. Stewart, A. T. Corrie, and E. L. Archer, St. Bartholomew's; Chas. Oldman, Cambridge and Guy's; W. J. Foster, Birmingham; J. Johnston, Toronto; William Rendall, T. D. Ransford, W. Dryland, and William Williams, Guy's; R. J. Carey and F. G. R. Tooze, Univ. Coll.; Charles Raines, Hull; J. J. Hues, Birmingham; C. de M. Palmer, Dublin; A. J. M. Bentley, Edinburgh; J. Perrizo, M'Gill College, Montreal; W. T. Hawthorne, London Hosp.; J. A. Hendry, Liverpool; W. M'N. Whistler, Pennsylvania; G. H. Heald, Leeds; D. Murdoch, Cork and Guy's; E. K. Corbin, Paris and St. Thomas's; E. Fretwell, Sheffield.

Thirteen other candidates were examined, but failed to satisfy the Court, and were referred for a period of three months' further anatomical and physiological study.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 3rd:—

Clarke, Joseph Hirst, Sheffield.
Hall, Edmd. T., Abertillery, Newport, Monmouthshire.
Mashall, John, Old Kent-road.
Wilian, Geo. Thos., Melton Mowbray.

The following gentlemen also on the same day passed their first professional examination:—

Horace Mansell Maybury, St. Thomas's Hospital; Edward Rice Morgan, King's College.

At the recent examination for prizes in Materia Medica and Pharmaceutical Chemistry annually given to medical students, the successful candidates were:—

1st.—Joseph Henry Philpot, King's College.
2nd.—Charles Jas. Haslop Warden, St. George's Hospital. A Silver Medal and a Book.

A MEETING of the Fellows of the Royal College of Surgeons, Ireland, was held on the 3rd inst., pursuant to the provisions of the Supplemental Charter, to elect a member of council in room of Dr. James Barker, resigned. There were four candidates, Dr. E. Mapother being elected. The voting was by ballot.

GALVANISM FOR THE WOUNDED.—Dr. Moritz Meyer, of Berlin, has founded a small hospital in that capital for the treatment by electricity of wounded soldiers who suffer from lesions likely to be benefited by the galvanic current. Patients with paralysis, neuralgia, &c., will be sent to him daily for the application of the current. Dr. Meyer supplies the instruments at his own cost.

IRISH LICENSING BODIES. — A meeting of the representatives of the licensing universities and colleges in Ireland was held on Monday, the 7th inst., in the College of Physicians, Kildare-street, with the object of laying down rules as regards the action they should take towards approaching legislation on medical matters. On behalf of the College of Surgeons, the President, Mr. Wharton, and Mr. Macnamara were chosen to represent that body.

Medical Appointments.

BAILEY, H. B., M.R.C.S.E., has been appointed House-Surgeon to the Loughborough Infirmary and Dispensary, vice J. C. Eaton, M.R.C.S.E., resigned.

BROWN, W., L.R.C.S.Ed., has been appointed Medical Officer for the Caldbeck District of the Wigton Union, Cumberland, vice R. Taylor, L.F.P. & S. Glas., resigned.

CAMPBELL, Mr. W. M., has been appointed House-Surgeon to the Seamen's Hospital (late "Dreadnought"), Greenwich.

CANTON, G. A., M.R.C.S.E., has been appointed Surgeon-Dentist to Charing-cross Hospital, vice G. Parkinson, M.R.C.S.E., resigned.

CLAY, J., M.R.C.S.E., has been appointed Hon. Obstetric Officer to the Queen's Hospital, Birmingham.

CUDDEFORD, T., M.R.C.S., has been appointed House-Surgeon to the Government Hospital at Trinidad.

DENNY, G. A., A.M., M.B., L.R.C.S.I., has been appointed Medical Attendant to the Ardfert Constabulary, vice W. S. Barry, L.R.C.P.Ed., L.R.C.S.Ed., deceased.

EASTES, G., M.B., F.R.C.S.E., has been appointed Surgeon-Accoucheur to the Western General Dispensary, vice A. Wynn Williams (Physician-Accoucheur), resigned.

FALCONER, R., L.R.C.S.Ed., has been appointed Surgeon to the Towns' Hospital and Lunatic Asylum, Paisley, vice W. Falconer, L.F.P. & S. Glas., deceased.

GRANVILLE, J., M.R.C.S., L.M., has been appointed Assistant House-Surgeon to the Government Hospital at Trinidad.

GREENWAY, Dr. A. G., has been appointed Resident Medical Officer at the General Hospital, Birmingham, vice J. B. Welch, M.B., M.R.C.S.E., resigned.

HAY, J., M.B., C.M., has been appointed Clinical Clerk at the West Riding Lunatic Asylum, Wakefield, vice A. Lawrence, M.B., C.M., appointed Assistant Medical Officer at the Cheshire Lunatic Asylum, Chester.

HOLLIS, A., M.B., C.M., M.R.C.S.E., has been appointed House-Surgeon to the Dorset County Hospital, Dorchester, vice F. W. Young, L.R.C.P.L., M.R.C.S.E., resigned.

LLOYD, T. L., M.R.C.S.E., has been appointed House-Surgeon to the Burton-on-Trent Infirmary, vice A. B. Simpson, L.R.C.S.Ed., resigned.

MARTIN, Dr. H. C., has been appointed House-Physician to the Seamen's Hospital (late "Dreadnought"), Greenwich.

MOORHEAD, Dr. W. E., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Benburb Dispensary District of the Dungannon Union, Co. Tyrone, vice J. H. Moore, M.D., deceased.

OLIPHANT, J., M.D., has been appointed Medical Officer to the North St. Margaret's District of the Leicester Union, vice H. Nuttall, M.D., resigned.

PITT, C. W., M.R.C.S.E., has been appointed Certifying Factory Surgeon for Malmesbury, vice G. Salter, L.R.C.P.Ed., M.R.C.S.E., deceased.

POTTER, S. R., M.B., has been appointed Medical Officer for the Bradninch District of the Tiverton Union, Devon.

ROSS, D. M'C., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Assistant House-Surgeon to the Halifax Infirmary and Dispensary, vice J. R. Ray, L.S.A.L., resigned.

SMITH, G., M.R.C.S.E., has been appointed Resident Surgeon at the Queen's Hospital, Birmingham, vice R. Jolly, M.D., F.R.C.S.Ed., resigned.

SNELL, Mr. J., has been appointed an Assistant Resident Medical Officer at the Leeds General Infirmary, vice Lloyd, resigned.

STONE, Dr. G., has been appointed Resident House-Surgeon at the East Dispensary, Liverpool, vice G. Hanbury, L.R.C.S.I., deceased.

WEST, Dr. W. F., has been appointed Medical Officer for the Rathmullen Dispensary District of the Milford Union, vice Gilbert Elliott, M.D., F.R.C.S.I., resigned.

Births, Marriages, and Deaths.

BIRTHS.

BENSLEY.—On the 27th of Oct., at Rampore, Beauleah, India, the wife of E. C. Bensley, F.R.C.S.E., of a son.

CALDWELL.—On the 4th inst., at Shott's Iron Works, the wife of John Caldwell, L.R.C.P., L.F.P. & S. Glas., of a son.

GROSVENOR.—On the 4th inst., at Onslow-gardens, Brompton, the wife of Wm. Grosvenor, L.R.C.P., of Canonbury, of a son.

HARDESTY.—On the 8th inst., at Balgay-terrace, Lochee, Dundee, the wife of J. Jeffrey Hardesty, L.R.C.P. & S. Ed., of a son.

MOORE.—On the 26th ult., at Cambridge-heath, Hackney, the wife of Dr. Moore, of a daughter.

MARRIAGES.

BURTON—HILL.—On the 3rd inst., at St. Philip's, Kensington, Thomas Beard Burton, M.R.C.S.E., of Richmond-road, West Brompton, to Rosa Anne, third daughter of Dr. Gardiner Hill, of Earls' Court House, Old Brompton.

CHARLESWORTH—ADAMS.—On the 1st inst., James Charlesworth, M.R.C.S., L.S.A., of Hanley, Staffordshire, to S. Marian, youngest daughter of Edward Adams, Esq., of Shelton Lodge.

HAIGH—KAY.—On the 20th ult., at St. Peter's Church, Oldham, Thomas Hinchliffe Haigh, M.R.C.S.E., of Grange House, Ley-moor, Golcar, to Fanny, daughter of Mr. Joseph Kay, of Oldham.

DEATHS.

CHILCOTE.—On the 20th ult., at Brixham, W. E. Chilcote, M.R.C.S.E., of Bridgetown, Totnes, aged 53.

LYMAN.—On the 2nd of Sept., at Landsborough, Victoria, Australia, after a few hours' illness, John Lyman, M.R.C.S., L.S.A., formerly Resident Medical Officer at the Dispensary, Macclesfield, Cheshire, aged about 29 years (?).

MACNAMARA.—On the 26th ult., suddenly, at Mansfield Woodhouse, Notts, James Macnamara, M.R.C.S.E., aged 33.

PERCY.—On the 3rd ult., in Trinidad, John Percy, L.R.C.S.I., aged 30.

STEVENSON.—On the 31st ult., J. H. Stevenson, M.R.C.S.E., of Whickham Hall, Gateshead-on-Tyne, aged 70.

Medical Diary of the Week.

Monday, Nov. 14.

ST. MARK'S HOSPITAL.—Operations, 3 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8 P.M. Dr. Althaus will show a Case of Paralysis, and also some new forms of Galvanic Apparatus.—Mr. Teevan, "On a Case of Calculus in the Ischio-Rectal Fossa."—Mr. J. D. Hill: "An Analysis of 140 Cases of Organic Urethral Stricture, of which 120 Cases were submitted to Holt's Operation, and 20 to Syme's Operation.

Tuesday, Nov. 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 3 P.M.
PATHOLOGICAL SOCIETY OF LONDON.—8 P.M. The following Specimens will be exhibited:—Mr. Maunder: A Tumour. Mr. J. E. Adams: Dislocation of Wrist. Dr. Quain (for Dr. Silver): Diseased Supra-Renal Capsules. Dr. D. Powell: Cases of Hæmoptysis. Mr. S. Davy: Hip-joints showing Destructive and Conservative Processes. Dr. Whipham: Diseases of Tricuspid Valve. Dr. Kelly: Heart in a Case of Cyanosis; Malformed Heart; Necrosis of Patella;—&c. &c.
ANTHROPOLOGICAL SOCIETY OF LONDON.—8 P.M.

Wednesday, Nov. 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 3 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Nov. 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 12; other Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
HARVEIAN SOCIETY OF LONDON.—8 P.M.

Friday, Nov. 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Nov. 19.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

THE GUARDIANS OF TIVERTON AND THEIR MEDICAL OFFICER.

WE rejoice to learn that, in consequence of our notice, public opinion has completely established the propriety of Mr. Terry's action in refusing to certify the insanity of Emma Rendle. Fortunately the attention of the Visiting Justices was in due course drawn to the case, and they have discharged Emma Rendle as being sufficiently sane and safe to be at large under the proper arrangements of a workhouse. By this time the guardians must be pretty well ashamed of their resolution condemning Mr. Terry's conduct. We congratulate Mr. Terry on the result, and we hope the guardians will have the fairness to support him against any petty annoyances to which he may be subjected.

An Old Surgeon.—Glioma is a word introduced by Virchow to denote a class of malignant intraocular tumours that originate in the *neuroglia*, or connective tissue of the retina, and to distinguish them from those that originate in the choroid. It therefore includes one portion of the growths that were formerly all classed together as "encephaloma of the eye."

THE VACCINATION ACT AT CROYDON.

THE occurrence of two deaths from small-pox at Croydon has had the beneficial effect of directing attention to the way in which the Vaccination Act is enforced. The authorities all agreed that the inspector was to blame. This is not an excuse that can hold good long. They are responsible for the inspector.

Dr. Jos. Morris's paper on the "Antiseptic Treatment of Wounds" shall, if possible, appear in our next impression.

Mr. W. Smith, (Nottingham.)—Trübner and Co., Paternoster-row.

"THE WAR AND THE AMBULANCE."

THE current number of *Macmillan's Magazine* contains a contribution with this heading, by Dr. Humphry Sandwith, C.B. Of course it is almost impossible for anyone to have seen what its author saw, and to have passed through the experience that he has done, without having something to relate of an interesting character; but we confess that we cannot speak of his paper in the highest terms. Dr. Sandwith has put together what he has to say in the loosest possible way. Possibly he thought anything connected with the present war would be of interest, coming from one who had just been to the seat of it. What can be the good of telling the readers of *Macmillan* that the most singular cases occur in military hospitals, and then giving the following as an example:—

> "A fine young man was struck on the 2nd August by a chassepôt ball in the groin. The ball was easily taken out; but, strange to say, it was oddly misshapen, showing it had struck against a hard substance. For some days the man did well, and the wound appeared to be of no great consequence; but in about three weeks strange symptoms of disordered brain function appeared—symptoms of paralysis and imperfect motor powers. Where did the ball go? Where did it strike? It must have had a run round the body, and eventually deposited itself not far from its entrance, after injuring the spine or brain."

We confess that we are as much at a loss to follow the reasoning of the author as he seems to be to explain the mysterious course of the ball. Dr. Sandwith tells us that the chassepôt ball is not so crushing or destructive a missile as the old spherical ball—a statement the accuracy of which we much doubt. Contrasting the results obtained by the more conservative surgery of the present day, he says, "that 17 per cent. of patients are lost by conservative surgery, and that 35 per cent. of amputated cases die." This does not at all coincide with what we have heard from other sources. The fact is, that in the field, where movement of the wounded must take place, and where neither the necessary appliances can be obtained nor the requisite amount of nursing and attention, resection operations cannot be undertaken with the same chance of success as in civil life. In Paris at the present time the wounded are at once removed to hospital, where they receive all the care and attention that the best surgeons and nurses can bestow upon them, and there they remain. The results of conservative surgery for gunshot injuries under such circumstances are said to be excellent—at any rate much better than they are among the Germans in their field hospitals. Dr. Sandwith asks his readers to imagine his delight one morning on receiving an answer to a request of his for £1000 from the Red Cross Society; but he omits to tell them that the answer was a favourable one, although it is clear from his delight and the succeeding remarks that it was. It is a great pity that those who go to the seat of war will not content themselves with describing in simple language what they saw, and the impressions they received. We ought in fairness to add, however, that the short paper on "The War and the Ambulance" contains a good many interesting details, and will repay perusal.

M.R.C.S.—The qualified assistant acts in this matter, as in others, for his principal. The fee cannot be claimed by the assistant, though it may be graciously shared with him by his master. There is no law of custom.

THE O. W. FUND.

A SUBSCRIPTION has been opened for the assistance of a well-known English physician, who some time ago went to reside in France, and whose wife was about to open a ladies' school there. Owing to the war, the family have been held in a village near to Paris, and have been subjected to the extremest difficulty. Through the exertions of Dr. Lavies, Dr. Henry, and Dr. Richardson, a fund has been raised to help our English brother, and we are requested to announce the following subscriptions which have already been received:—

By Dr. Lavies.

R. M. Benev. Fund	...	£10	0	0	Dr. Sibson	£4	1	0
Dudley Male, Esq.	...	10	10	0	Dr. Semple	1	1	0
Sir Thos. Watson, Bart.	...	5	0	0	A Friend	1	0	0
Dr. C. J. B. Williams	...	5	0	0	Dr. J. W. Ogle	1	1	0
Dr. Male	...	5	5	0	Dr. Hoekee	1	1	0
Dr. Cotton	...	5	0	0	Dr. Lord	1	0	0
Dr. Stocker	...	5	0	0	Dr. Blower	0	10	6
Dr. Lavies	...	5	0	0	Dr. Dunn	0	10	0
Dr. Risdon Bennett	...	2	2	0				

By Dr. Richardson.

Dr. Burrows, F.R.S.	...	£3	2	0	Dr. Paget, Cambridge	£1	1	0
J. Paget, Esq., F.R.S.	...	3	2	0	W. Hepworth Dixon, Esq.	1	1	0
Rev. M. Claxton	...	1	0	0	Dr. T. G. Balfour	1	0	0
W. Adams, Esq.	...	1	1	0	Professor Erasmus Wilson, F.R.S.	10	0	0
Dr. Hughlings Jackson	...	1	1	0	G. C.	1	1	0
Dr. John Murray	...	1	1	0	T. Taylor Griffith, Esq., Wrexham	3	3	0
D. A. Halfeeden, Esq.	...	1	1	0	Dr. Bull, Hereford	1	1	0
Dr. Richardson, F.R.S.	...	1	1	0	Hy. Bateman, Esq.	1	1	0
J. T. Clover, Esq.	...	1	1	0	W. Bowman, Esq., F.R.S.	5	5	0
Dr. Leonard W. Sedgwick	...	1	1	0	T. Paget, Esq., Leicester	5	0	0
Geo. Busk, Esq., F.R.S.	...	2	0	0	Dr. Radford, Manchester	1	1	0
Dr. Boyd	...	1	0	0	Dr. Armstrong, Gravesend	2	0	0
T. B. Curling, Esq., F.R.S.	...	2	2	0	H. D. Carden, Esq., Worcester	3	0	0
G. Critchett, Esq.	...	2	2	0	Wm. Martin, Esq.	1	1	0
Dr. Anstie	...	1	1	0	White Cooper, Esq.	1	1	0
Sir W. Jenner, Bart., F.R.S.	...	5	0	0	Dr. Habershon	1	1	0
C. Bader, Esq.	...	1	1	0				
A Lady, by Dr. Anstie	...	0	10	6				
Barnard Holt, Esq.	...	2	2	0				
Cæsar Hawkins, Esq., F.R.S.		5	0	0				

Some part of the Fund has already been forwarded by Dr. Lavies, enough to meet immediate necessities. Further subscriptions will be announced.

AN ARMY MEDICAL RESERVE.

WE have been favoured with a copy of a scheme, put forward, we presume, by a medical officer signing himself "X. Y. Z.," for the formation of an Army Medical Reserve, which its author thinks could be carried out at relatively small expense, and with the effect of accelerating promotion in the department. It is, no doubt, quite true that it would be impossible to expand the present establishment sufficiently to meet the requirements of war. Indeed, if future wars are to be waged on the same scale as the last three or four have been, no medical establishment would be adequate to the necessities of a single general action. Instead of the numerical strength of the armies brought into the field diminishing as the world grows older, armies threaten to become so enormous that no nation in the world would tolerate the expense of a standing force of one-third the requisite dimensions. The organisation of a large Reserve Force of some kind will probably be attempted in England. Russia, as we were all puzzled by hearing from the telegrams one morning, suddenly ordered a Military Commission to consider the best method for at once embodying a reserve of 1000 medical officers; and "X. Y. Z." thinks that we ought to make a provision of a similar character. He suggests that all medical officers who have completed twenty years' full-pay service should be allowed to retire at the highest rate of pension now given at twenty-five years, on the condition that they join an Army Medical Reserve, and become liable to be recalled in case of active service up to the age of fifty-five years. He endeavours to demonstrate the extreme economy of this measure to the country. That it would, if practicable, be a very good one for the Army Medical Department, we cannot deny. An earlier and a better retirement for medical officers is the thing, of all others, they would prefer. But then is it practicable? In other words, is not the policy of the present War Minister utterly opposed to any increase in the list of pensions, half pay, or retirement allowances? Mr. Cardwell wants to keep no more cats than are really employed in catching mice, and he probably would, if he dared, sharpen the appetites of those already on the establishment by diminishing their salaries. That something ought to be done, and will have to be done before long, to remedy the stagnation, as regards promotion, of the lower ranks of medical officers we do not doubt. There are several ways in which the Government might, if disposed, open out a number of employments for medical officers on retirement; and there should, we think, be a system of compulsory retirement for the inspectorial ranks. Supposing the Government gave an additional half-crown a day to the retiring allowance of the Inspectors-General, and compelled them to go after a certain length of service, those officers would have nothing of which to complain, and the department much for which to be grateful.

Alopecia.—We cannot recommend the application. From lead forming one of the elements entering into its composition, its use may not be unattended with danger.

FRENCH MALTHUSIANS.

To the Editor of THE LANCET.

SIR,—Will you excuse my pointing out what appears to me a slight oversight in one of your editorial notices in THE LANCET of last week?

You print a letter from Dr. Drysdale, in which the following passage occurs: "Mrs. Grote," says the doctor, "in her 'Collated Papers,' quotes M. Maurice Block to the effect that the peasantry in many parts of France habitually limit their families to two children, with great approbation." On this you observe, "Of M. Block we are bound to say we had never heard before."

I am not for my own part acquainted with the "papers" of Mrs. Grote here mentioned; but M. Maurice Block, whom she is here said to "quote," is a statistical writer of much ability. I know nothing of any such passage in his works as is here indicated; but I have before me his last publication, "L'Europe Politique et Sociale," 1869, in which he speaks of the "feeble fecundity" of marriages in France simply as a great national evil, and goes into minute calculations in order to show that it is not accompanied by a compensating result which some had attributed to it—a lengthening of the average duration of life in that country.

I take the liberty of calling your attention to these particulars, because, adopting entirely your views as to the evil tendencies of the doctrine of "self-restraint," and holding it to be economically as useless as it is morally mischievous, I should be sorry to suppose that so philosophical an observer as M. Block held the contrary opinion. It is, indeed, obvious that in active and thriving societies it must be wholly ineffective. People must not only have few children themselves, but they must establish some kind of trades' union compulsion to keep others from having many. It is said—I speak very cautiously, knowing how undependable such general statements are apt to be—that these practices prevail among the native-born population of New England; but as that population is fed by constant accessions of sturdy Irish and other immigrants, absolutely unversed in the philosophy of Mr. Mill and Mrs. Grote, it is clear that, if the alleged fact be true, the only consequence must be the gradual extinction of the old race, and substitution of a newer and healthier one.

Yours, &c.,
November 8th, 1870. H. M.

SPIRITUS CHLORALIS.

THIS preparation by Messrs. Savory and Moore has been submitted by us to trial in one of the metropolitan hospitals, and we have received the following report upon it from the resident medical staff:—

"In all cases it acted as well as its equivalent of chloral hydrate; in none better as far as could be learnt. By some patients it was preferred to plain solution of chloral; by others the flavour was disliked. On the whole we do not think it superior to ordinary chloral hydrate."

Mr. Wright, (Leeds.)—We know nothing of the person mentioned. There is no such institution as the "College of Physicians and Surgeons of England."

THE important letter of *Medicus* shall be inserted next week.

THE SICK-CLUB QUESTION.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to reply as briefly as possible to "A Country Vicar," whose remarks on the Sick-Club question appeared in your journal of October 29th?

While giving the reverend gentleman credit for the interest he evidently takes in the subject of medical attendance on the sick poor, I hope he will forgive me if I remind him that "impressions" are less reliable than "facts." It is very difficult to obtain statistics on the degree of remunerativeness of Club practice, as many medical men never keep any record of the work done for that class of patients. But it so happens that for many years my brother and I have kept an account of our attendance upon fifteen Clubs, together with the receipts for the same, and the result of a careful calculation, based upon these data, shows that the average proportion of members ill during each year was three-fourths of the whole, and that the rate of remuneration per visit within a radius of five to six miles, inclusive of medicines, the treatment of fractures, &c., and the performance of such operations as the cases required, ranged from 7*d.* in the worst to 1*s.* 8*d.* in the best paying Club, the average being about 1*s.* These facts are greatly at variance with the Vicar's "impression" that his Club "pays the doctor 5*s.* to 6*s.* a visit." This discrepancy can only be explained either by the Vicar's "impression" being incorrect, or by an exceptional immunity from sickness on the part of the members of his Club, due possibly to the fact that they are not allowed to remain in it after attaining the age of sixty-five—an unfortunate regulation for the poor old people!

My observation is opposed to the assertion that the sick poor, who can command the services of the Club or Union doctor, do not receive timely and efficient medical attendance, inasmuch as they are not deterred by a dread of the expense from seeking advice early; and as far as I am myself concerned—and I have no doubt it is the same with many others,—they are visited more frequently than my private patients, because there is no fear of a mercenary motive being imputed to me.

I must confess that I do not see the force of the argument, that if 4*s.* a year for attendance on a labouring man prove remunerative (which I think my "facts" have disproved), it should therefore be equally so in the case of well-to-do farmers, manufacturers, and tradespeople, to which class of persons "A Country Vicar" would wish the 4*s.* Club system to be extended. The fact is, that medical men look upon their attendance on the working classes more as an act of charity than a source of profit, and few know how much time and thought they cheerfully give without the remotest prospect of remuneration.

Perhaps "A Country Vicar" would be better able to realise the principle of the question if it were to be proposed that the substantial farmers, manufacturers, and tradespeople should pay the same fees to the clergyman as the poor labourer, which would be a parallel case to the one under consideration.

I am, Sir, yours obediently,
Sandon, Stone, October, 1870. J. H. TYLECOTE, M.D.

To the Editor of THE LANCET.

SIR,—I attended for some years a Lodge of Foresters, the members paying 4*s.* a year each; and as they seemed to think I was well paid for my services, I kept an accurate account for one year of all that I was called upon to do, for the purpose of proving that the remuneration was very paltry. Having read my report, most of the members were of my opinion. I am, therefore, in a position to give the "hard reliable statistics" your correspondent, "A Country Vicar," requires. The payment of 4*s.* a year averages for each sick member, whether requiring medicine at my surgery or attendance at his residence (within three miles), exactly twenty-one farthings per diem! Why do not all the members of the profession refuse to attend any Clubs, except those composed strictly of the labouring classes, who out of their hard earnings are independent enough to find their own doctor? By all means let us help them.

I have sent the report alluded to, to show the accuracy of my statement.

I am, Sir, your obedient servant,
November 1st, 1870. M.R.C.S.

To the Editor of THE LANCET.

SIR,—I am glad to see that Mr. Masters has taken up the Club question on behalf of the Odd Fellows, and I will endeavour to carry out his suggestion of a friendly conference between the medical profession and some of the principal members of the district on the part of the Odd Fellows, to talk over our grievances. I am quite sure that Mr. Masters and those he may associate with him will attend such a meeting with a desire to come to a satisfactory understanding on the subject; and I believe that my professional brethren will bring forward such "hard reliable statistics" as will convince even the more sceptical that our complaints are just and well founded.

As the Odd Fellows of the district are now about to revise their laws, it seems a very favourable opportunity for holding such a meeting as Mr. Masters suggests, and I do not doubt but that in the revised laws the medical men will receive more consideration than they have hitherto done. I am fully acquainted with the efforts of Mr. Masters, Mr. Cox, and others in this district to improve the condition of the Odd Fellows' Lodges, and how much they have done in that direction, and they will both deserve and receive the thanks of the profession for trying to bring about a better understanding between Clubs and their doctors.

I do not quite agree with Mr. Masters that the subject is not yet ripe enough for discussion in a public journal, for it is only by such discussion that the public can be made acquainted with the facts of the case; and thanks to the publicity you have given from time to time to our grievances, and your able advocacy of our claims for so many years, the public is now becoming thoroughly informed on the subject, and only wonders that the doctors have not taken more decided action sooner.

When the conference has taken place, I will acquaint you with the result; and in the meantime I shall be very much obliged to any medical man who will forward me as soon as possible any statistics of his Club attendance, that I may produce them at the meeting, perhaps in the following form, or any other that may suggest itself:—Name of Club; number of members; number of members attended during last twelve months, mentioning any serious cases, operations, &c.; rate of payment per member, and amount such payment allows per visit to the sick, whether at the patient's own home or at the surgery, and any other facts that may be of use.

I am, Sir, your obedient servant,
Great Haywood, Stafford, Nov. 2nd, 1870. E. T. TYLECOTE, M.D.

DISEASE AND DESTITUTION OF THE INHABITANTS OF THE GWALIOR STATE IN 1869.

WE can, happily, form no conception in this country of what must be the sufferings occasionally of the native population in India. From the Report of the Sanitary Commissioner with the Government of India for 1869, we learn that, according to a statement which was furnished by the Durbar early in the current year, from the 6th June to October, 1869, 3833 persons are believed to have died of starvation, and 89,136 of disease, chiefly heat-apoplexy and cholera. It is estimated that nearly 400,000 cattle perished from want and heat during the same period. How far these returns are correct admits of some doubt; but the Political Agent is of opinion that the numbers are not exaggerated. In this calamity of drought, famine, and disease, whole families perished without notice or record. The number of deaths caused by heat-apoplexy among natives is a remarkable and most unusual feature of the year, and the statistics of the native troops and prisoners show how unusually prevalent this disease was among them. Writing on the 14th September, 1869, the Political Agent at Gwalior states:—

"The deaths from heat-apoplexy in the districts, doubtless, far exceeded those of the towns. From every direction came the same reports. Scores of travellers were found dead about the country, especially on the Agra and Bombay road, and agriculturists, cowherds, and other classes of people died in the fields. The approaches to cantonments were dotted with corpses. Death met the eye at every turn; flocks wandered for want of shepherds. It really seemed as if a plague was being bred, and in all the cases the suddenness of death was the great peculiarity. There was no stage of insensibility accompanied by stertorous breathing, so distressing to witness ordinarily. There was no struggle for life. In most instances the wretched victims, half delirious from the throbbing headache and the burning skin, faint, and labouring from a fearful thirst, staggered to the nearest stream or well, crying for 'water, water'; but no sooner had they drank copiously of what they believed to be the water of life than their systems suddenly collapsed; they fainted, and death released them from their sufferings."

M.D., (Manningtree.)—It must be a matter of arrangement between the parties concerned; but the distance should be within reasonable limits, not beyond two miles, say.

Dr. Deeley's communication will probably be inserted next week.

THE OPERATION OF SKIN-GRAFTING.

To the Editor of THE LANCET.

SIR,—I notice in your Journal of October 29th, a report of a case of Skin-grafting, in which "Mr. Couper said that no sooner had the grafted centres commenced to grow than the ulcer was observed to heal very appreciably from the circumference, &c. Mr. Couper was not prepared to consider it more than a remarkable coincidence."

Now I am quite sure that Mr. Couper was right in his observation as to the fact of increased marginal growth, though I do not believe it simply a coincidence. I have had numerous cases of skin-grafting, and soon noticed the increased marginal growth after central transplantation, and I pointed it out strongly in a paper which I read before the Bath and Bristol Branch of the British Medical Association on October 27th. I made the following experiments to determine it:—

A patient with large varicose veins had had for ten years three ulcers on the leg. At the time of his admission they were indolent, with white and indurated margins. He was kept in bed, with ordinary zinc lotion as a dressing. He made no progress during two weeks. On October 1st, two of the ulcers had small pieces of skin, not bigger than a canary-seed, inserted into them; the centres soon sprang up, and, to my surprise, the margin began to lose its white and indurated appearance, and rapidly to heal towards the centre; still, it will be observed, under the same treatment as before, except the transplantation. The third ulcer meanwhile remained in precisely the same condition as at first. On October 15th, I made an insertion into the "stationary" ulcer, and here again it healed from the margin as well as the centre.

This case was shown before the Association, and speaks for itself. I have had several similar ones; but as I have written at greater length elsewhere, I refrain from further comment. I might, perhaps, add that the portion of margin nearest a graft appeared to heal more rapidly than margin not so situated.

I am, Sir, yours, &c.,
Bristol, October 31st, 1870. NELSON C. DOBSON, F.R.C.S. (Exam.)

To the Editor of THE LANCET.

SIR,—On October 5th, I exhibited at the Manchester Medical Society a case of Skin-grafting upon an ulcer, the result of a burn, of thirteen months' standing. At that meeting I mentioned that I believed I could see a closing-in of the edges towards the islands of newly-grafted skin, and since that date this encroachment has become very marked.

In a case reported in your number of October 29th, under the care of Mr. Couper, of the London Hospital, he has noticed the same circumstance, which, however, he considers to be merely "a remarkable coincidence."

Now, I believe it to be a natural and most important sequence of the successful grafting. In my own case it is most evident. Opposite to each island of skin the circumference of the ulcer has bowed in to meet the extending lines of cicatrisation; and as all these centres have now joined each other and the circumference, an ulcer measuring six by seven inches is now divided into four small and rapidly healing sores.

It seems quite clear to me that the formation of centres of healthy and vigorous action, in the midst of the wide field of granulations, leaves to the circumferential cicatrix a greater amount of reparatory force, and thus leads to a recommencement of the healing process, in precisely the same manner as we find that process to be most active before the granulating surface was removed by cicatricial tissue to a distance from the sound skin. I hope to be able to elucidate this more fully when my case is completed, and purpose then to forward a detailed account. Meantime, thinking the subject to be of sufficient importance, I venture to occupy your space with this statement.

I am, Sir, yours, &c.,
Manchester, October 31st, 1870. W. H. BARLOW, M.D.

HINDOO WOMEN AS MEDICAL STUDENTS.

Dr. Corbyn, of Bareilly, writes to say that he is now, and has for some time been, educating native Hindoo women for some branches of the medical profession. Three of them, he says, have already passed as native doctors. They are of all castes—Christian, Mahometan, and Hindoo, the first being the sharpest. His school is divided into three classes. The pupils of the first class can read and write English and Urdoo accurately, and are taught medicine, surgery, and (more especially) midwifery and diseases of women and children. Those of the second class learn anatomy, materia medica, and physiology in English and Urdoo. Those of the third or preparatory class are taught English and Urdoo. A female ward is attached to the dispensary for women and children, and these native pupils attend to the patients entirely, under the supervision of Dr. Corbyn and his sub-assistant.

CROWDED CHURCHYARDS.

A CORRESPONDENT, writing to us from Carlton, Worksop, Notts, says that the churchyard of that place is in a very disgraceful state. An interment can scarcely take place without human remains being thrown out of the grave. He asks whether anything can be done to put a stop to this? and if so, to whom an application on the subject should be addressed?

M. Lemoine, (Reading.)—We have no communication with our correspondent "inside Paris," or we should be happy to have forwarded M. Lemoine's letter.

THE LATE DR. COLEMAN.

To the Editor of THE LANCET.

SIR,—Permit me to address you on a subject dear to every member of the medical profession throughout the United Kingdom. I allude to the premature and lamented death of Dr. Coleman, of Miltown Maltbay, county Clare, whose life was taken from him while attending the sick and wounded in France, as much as if he had been laid low by a bullet while exercising the humane office of his calling on the battle-field; for it was while attending fever-stricken patients after the disastrous battle of Sedan that Dr. Coleman was stricken with the same malady that struck down many others, and thus he became a martyr to his own zeal in his endeavours to relieve the sick and the wounded, the victims of the present unhappy war between France and Germany.

The deceased gentleman left this country for the seat of war in company with Lord Viscount Adare, son of the Earl of Dunraven, whose acquaintance he made at Lisdronvarna, where his Lordship had been staying during the summer for the benefit of his health, along with his amiable Viscountess. Dr. Coleman, like all the benevolent members of his profession, undeterred by fear, plunged into the midst of the deadly conflict, and there, as it were, sacrificed his life in the cause of humanity, leaving a wife and four orphans (the eldest but seven years, and the youngest fourteen months old) helpless on the world.

If ever there was a case demanding the sympathy of those who grieve for the afflictions of others, but, above all, if ever there was a case demanding the expression in practice of professional fraternity, it is that of Mrs. Coleman and her desolate and bereaved "little ones," and it is on their behalf that I appeal, through your columns, to the members of the medical faculty throughout the United Kingdom. Dr. Coleman was a gentleman not alone possessed of those outward accomplishments which now pass current in general society—those polite manners that would have made him an ornament of London or Parisian society. He was more; he was a man deeply read in medical science, and he gave promise of being one of the greatest ornaments in his profession which this country has produced; and no mean judge of intellectual calibre, Lord Adare, a well-known accomplished nobleman, took a deep interest in him, simply on account of his high mental and professional attainments.

Amongst the members of his own profession in this country, Dr. Coleman had gained a reputation of a high order for his thorough knowledge of medical jurisprudence; and he was on the eve of a career which possibly would have gained for him a European reputation when death suddenly came upon him, and thus was lost a life, sacrificed in order to save that of his fellow-man.

The medical profession throughout the United Kingdom contains many members, and through your journal, which circulates throughout England, Ireland, and Scotland, as well as the colonies, do I appeal on behalf of Dr. Coleman's afflicted widow and children. A subscription, even a small one, from each member of the profession would enable the mother to bring them up in the position in life to which their father belonged; and what ought to be more pleasurable to the medical gentleman than to be able to assist in the rearing and education befitting the rank in life of their parent, the children of a deceased brother. If every member of the profession will but put his hand in his pocket for this most laudable object, he will enable the orphans of Dr. Coleman to attain to their father's profession and status; and, I repeat, it is on their behalf and that of their disconsolate mother that I appeal to the medical faculty in general to come to their succour now in the hour of their deep affliction and want. Dr. Coleman held a dispensary appointment, well known to your readers in its pecuniary character, and "passed rich on £100 a year," being but a village doctor in that sense, and he could not, for he had not the opportunity, have left any means behind him; hence the necessity of this letter.

Subscriptions will be thankfully received by the Manager of the National Bank, Miltown Maltbay, county Clare; Capt. John White, Standfield House, Miltown Maltbay; or William Speight, Esq., Derry Castle, Killaloe.

I remain, Sir, your obedient servant,
Limerick Club, November, 1870. J. R. A.

MOUNTED MICROSCOPIC SPECIMENS OF NERVOUS SYSTEM.

A CORRESPONDENT is desirous of ascertaining the address of some one who could supply him with mounted microscopic specimens of human tissues—brain, sympathetic nerve, &c.

Mr. Edward F. Gedge.—We do not forward private answers, and we never prescribe.

A LETTER addressed to 146, West Regent-street, Glasgow, has been returned. We shall be happy to receive the report, if short.

NO HELP.

A SAD case is reported in the *West Cork Eagle and County Advertiser* by a guardian, at a meeting of the Kinsale Union, of a farmer failing to get the assistance of a doctor for his wife in a bad labour. "Some were unable, and some were unwilling to go." While he was going from doctor to doctor, and from place to place, his wife died of rupture of the uterus. One guardian said, the farmer, though willing to pay, would not pay a sufficient fee. It is not stated why a medical man was not retained for the duty beforehand. Dr. Hornibrook said the man ought to have got a dispensary ticket, which would ensure the doctor's attendance. If the case were an unfit one to be so relieved, the dispensary committee could afterwards insist on payment. Such cases always fill us with grief and some shame that for love, if not for money, some friendly doctor will not run to the rescue. No doubt it is very unreasonable in people to expect so much from a profession to which they give so little. But it is the very property of our art to be benevolent, and such cases as this ought not to happen.

Omnia Recte, (Newry.)—There will be a competitive examination for the British medical service in February next. The vacancies to be filled up will probably amount to thirty. We have not been able to ascertain the probable date of the next examination for the Indian medical service.

Professor Maclean's letter is unavoidably postponed until next week.

ATTENDANCE UPON THE WIDOWS AND FAMILIES OF MEDICAL MEN.

To the Editor of THE LANCET.

SIR,—Will you or any of your correspondents kindly inform me what is customary in regard to charging the widows and families of deceased medical men? I am frequently called to attend such, and some in very good circumstances expect attendance and advice at any time free of charge; while others in indifferent circumstances wish to pay.

Yours, &c.,

November, 1870. AN ENQUIRER AND CONSTANT READER.

*** The ordinary rule is never to make a charge to the widow of a medical man, nor to the orphans until they cease to be dependent upon the widow. When they can earn their own living, or when daughters marry, they have no claim on the profession, nor would the widow if she married again. If the widow is in good circumstances, and wishful to pay for attendance, there is no objection to her doing so; but it must be understood that fees are only taken as a concession to her feelings, and not as a right. On the other hand, the liberality of the profession should not be abused, and busy men ought not to be expected to make long journeys without remuneration. The duty of rendering medical aid to the family of a deceased brother may almost be said to rest upon the neighbouring practitioners, and to one of them should application be made.—ED. L.

THE SYSTEM OF FAGGING.

IN connexion with our remarks upon Drill for Schoolboys, it may be of interest to our readers to know that £50 has been placed in the hands of Dr. Edmunds by a lady, to be given as a prize for the best essay upon the System of Fagging, as practised among children at public and other schools. The prize will not be awarded unless in the judgment of the adjudicator the best essay possesses substantial merit; and in case no such essay be received by the end of March, 1871, the prize will be subjected to a second competition.

CASE OF DISTRESS.

Dr. Baxter Langley requests us to acknowledge the following sums received by the poor lady to whom his recent letter referred:—J. H. Wraith, Darwen, £1 1s; Mrs. Rooke, £1 1s.; J. B. L., £1 1s.; S. Armstrong, £1; A Mite, 5s.; E. B., Worksop, 5s.; Anon., Manchester, 5s.; An Assistant, 2s. 6d.

Mr. Robinson.—Yes, the fee can be recovered by law.

A QUESTION IN OBSTETRICS.

To the Editor of THE LANCET.

SIR,—In answer to the question of your correspondent, "C. W.," allow me to suggest that the discharge is liquor sanguinis. When the loss took place two months ago, the placenta, situated I should suppose near the fundus, was partially detached. Since then blood has been freely discharged from the open blood-vessels, and has deposited its fibrine and colouring matter in the meshes of the clots left between the membranes and the uterus at the former bleeding; the liquor sanguinis has then been from time to time discharged. Let me draw your correspondent's attention to a paper of mine in THE LANCET of last year, "On the Diagnosis of Accidental Hæmorrhage from Placenta Prævia," which bears out this view. I should advise complete rest in the recumbent position, with the application of a well-fitting binder. The pregnancy will most likely go on to full term, and a large mass of fibrine be voided with the placenta; at least so it has often happened with.

Yours truly,

Hornsey-rise, October 28th, 1870. EDWARD CALTHROP.

P.S.—In reply to Mr. T. F. Clarke, as to the immunity of married men from non-gonorrhœal discharges, allow me to say that in my experience they enjoy no such freedom.

UNITED STATES NAVAL MEDICAL SERVICE.

A CORRESPONDENT desires to obtain the regulations for the entrance of assistant-surgeons to the medical service of the United States Navy.

Mr. Thomas Sopper, (Ashford.)—Yes, if short.

Audax.—An order has been recently issued by Mr. Goschen, making Poor-law medical appointments permanent. Non-residence may be a reason which the Poor-law Board would recognise for declining to act on the order in a particular case.

UNQUALIFIED PRACTITIONERS.

Black Country.—Our correspondent suggests that in view of a Medical Bill, and the hope of convincing our legislators of the need for it, a list should be prepared of the men who are practising medicine and surgery without any qualification. Every medical man, he thinks, might be requested to supply a list of the unqualified persons within his district. The suggestion is a good one. Such a list would certainly be interesting, especially if accompanied with some information as to the nature and extent of the practice of unqualified practitioners.

M.R.C.S.—Judging from the most authenticated cases that have been published, the following might be expected to take place:—The vaccine disease would first run its course; an induration or flattened tubercle would then appear, with enlargement and induration of the neighbouring glands, and this would be followed by general manifestations of the disease on the skin and mucous membranes.

Anglo-Oriental.—We believe we are correct in saying that the attempts that have hitherto been made to inoculate animals with the disease have failed. The subject of our correspondent's communication, however, is too unwholesome for us to take up.

O. P. Q. had better consult the index.

Mr. Charles Saunderson.—Apply to the Analytical Laboratory, Adelphi-terrace.

ERRATUM.—In the notice we gave last week of Messrs. Gillon and Co.'s Lime-juice, it was stated, through a clerical error, that 1000 parts of lime-juice contained *anhydrous acetic* 42·24, instead of *citric*.

COMMUNICATIONS, LETTERS, &c., have been received from — Prof. Maclean, Netley; Dr. Hyde Salter; Dr. J. B. Sanderson; Dr. Hawkes, Hanwell; Mr. Wright, Leeds; Mr. Steward, Shotts; Dr. Morris; Dr. Woodward; Dr. Ball, Spalding; Mr. Waite, Salem, Oregon; Dr. Mitchelle, Dinapore; Mr. Hyslop, Church Stretton; Mr. Collins; Mr. Roberts; Mr. Saunderson; Dr. Jefferies, Swindon; Mr. W. S. Smith; Dr. Moore, Hackney; Mr. Crane; Mr. Kiallmark; Mr. Harris; Mr. Wilson; Mr. Maxwell; Mr. R. Whitwell, Okehampton; Mr. Thomas, Lynn; Dr. Kidson, Deeside; Mr. W. Davies, Richmond; Dr. Campbell, Waterbeach; Mr. Teale, Oundle; Mr. Edwards; Dr. de Wet, Fehrsen, Dresden; Mr. Wheeler; Dr. Oliphant, Leicester; Mr. Anderson; Dr. Hamilton, Londonderry; Mr. Lloyd, Burton-on-Trent; Dr. Ramsey; Mr. Lewis, Portsmouth; Dr. More, Rothwell; Dr. Foster; Mr. Reilly, Wigan; Mr. Marten; Mr. Le Vere; Mr. Keith; Mr. Buckley, Mitcham; Dr. Richards; Mr. Giles; Dr. Leroy, Brussels; Dr. Bamford, Bradford; Dr. Rose, Chesterfield; Dr. Rhodes, Weymouth; Dr. Macadam, Edinburgh; Mr. Taylor; Dr. Burder, Bristol; Messrs. Gillon & Co., Leith; Mr. Colman; Dr. Hogg, Eckington; Mr. Strange; Dr. Deeley, New York; Dr. C. Black; Mr. Evans, Taunton; Dr. Dickson; Mr. L. Tait, Birmingham; Mr. Crowle; Mr. J. Croome, Wansford; Mr. Masters, Thrapstone; Mr. Miller; Mr. Gedge; Mr. Dixon; Dr. Adam, Boston; Mr. Brenchley; Dr. Edmunds; Mr. Hilton; Mr. Watson; Dr. Hunter; Mr. Wood, Macclesfield; Mr. Cordwent, Taunton; Mr. Selhurst; Mr. Hartley; Mr. Inman; Mr. Poole; Mr. Samuelson; Mr. Meade; Mr. Payne, Hadlow; Mr. Drew; Mr. Whitefield; Mr. Roberts; Mr. Harrison; Mr. Hoyle; Mr. R. Williams, Bala; Mr. Griffiths; Mr. Berry, Maryport; Mr. Hearne; Mr. S. Moxhay; Mr. Haigh, Golcar; Mr. Tomlin; Mr. Craven, Haverfordwest; Dr. Eastes; Dr. Hardesty, Lochee; Dr. Smith; Mr. Mackinnon, Stirling; Dr. Tibbits, Rugeley; Dr. Griffin, Banbury; Dr. Burton; Dr. Langley; Mr. Oxley, Liverpool; Mr. Selwood; Mr. Harde; Mr. Knowle, Ashton; Mr. Wayne; Mr. Arthur, Chelmsford; Mr. Goode, Wigan; Mr. Sharpe; Mr. Freeman; Mr. Macpherson, Ipswich; Mr. Fox; A Prescriber; Alopecia; Medicus; H. M.; Audax; L. R.; M.R.C.S.; An Old Surgeon; ——, St. Neots; M.D.; Anglo-Oriental; The Secretary of the Anthropological Society; Delta; J. C.; O. P. Q.; A Woman's Friend; H. J. W.; Epsilon; W. F. D.; Civis; R. Y.; A Lawyer's Son; Alpha; &c. &c.

Australian Medical Gazette, Liverpool Daily Post, Hampshire Telegraph, Shield, Clerkenwell News, Parochial Critic, Indian Medical Gazette, Liverpool Mercury, West Cork Eagle, Evening Gazette, Leeds Mercury, and *Woodhull and Claplin's Weekly* (New York) have been received.

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